

January 7, 2019

- The EU keeps on ticking 26
- Robbing the Cobalt Jesus 48
- Iowa and Guatemala bond 38



## The Trump Slump

Why the market  
said goodbye to  
the Trump Bump

10

VISIT...

LANZAROTE  
*Caliente*.COM



# Walk the Talk

## China takes further steps to support private enterprises By Zhang Shasha

Yan Hongzhi was worried about money. His company, Linkage Potato Co. Ltd., had plans to expand production, and its demand for potatoes had recently increased from 70,000 to 120,000 tons. To purchase the crop, the supplier of potato foods, based in Chifeng, a city in north China's Inner Mongolia Autonomous Region, had to raise 200 million yuan (\$29 million)—but the company was short 20 million yuan (\$2.9 million).

The shortage of money did not concern Yan for long. On Nov. 6, 2018, only five working days after he applied for a loan from the Agricultural Development Bank of China (ADB), his company received a loan of 19 million yuan (\$2.75 million), with an interest rate of 4.35 percent.

The ADB is China's only rural policy lender providing financial services to agriculture and the rural economy. In Inner Mongolia, most land is elevated on a 1,200-meter-high plateau offering a cooler climate and expansive terrain, and potatoes and grain are the main agricultural products. Private companies are the major players in this industry, and to help them expand their purchases of agricultural products, the ADB has issued loans to private companies with financing difficulties.

The interest rate on these ADB loans is 50 percent lower than that of other financing methods, according to Li Guoliang, who runs a company in Tongliao, an ancient city in Inner Mongolia, that purchases sorghum, green beans and buckwheat.

At a symposium on Nov. 1, President Xi Jinping reiterated the significance of the private sector in China's economic development, and demanded concrete approaches to address the difficulties it encounters



Workers process dried fruit at a privately owned company in Yiyuan County, in east China's Shandong Province, on November 4, 2018.

in marketing, financing and restructuring. Since then, a host of new policies and measures have been announced, indicating that support for private enterprises is not just a slogan, and that it is being backed by substantial action.

### Collective response

On Nov. 6, the People's Bank of China (PBC), the country's central bank, unveiled an array of policies regarding bond issuance, bank loans and equity financing.

"There is a lot of water in the monetary pool, but we need to channel the funds to cash-starved private businesses," says PBC Governor Yi Gang. He disclosed that in a recent bond issuance pilot, the first batch of three companies raised a total of 1.9 billion yuan (\$275.4 million), with their bonds oversubscribed, while another 30 private enterprises were on their way to preparing for the issuance.

Commercial banks, such as China Construction Bank (CCB) and China

Minsheng Bank, also have taken measures to facilitate healthy development of private companies.

CCB will optimize the incentive mechanism on credit assessment to prioritize financial support for private businesses in order to boost the development of China's real economy, says CCB Chairman Tian Guoli.

Hong Qi, Chairman of Minsheng Bank, says the bank has prepared a credit quota of 30 billion yuan (\$4.35 billion) for the fourth quarter of 2018 to specifically support loans and financing activities for strategic private enterprises.

On Nov. 10, Ning Jizhe, deputy head of the National Development and Reform Commission, said that China will launch a series of projects in the transport, energy, ecology and environmental protection sectors in line with national industrial policies, with a clear investment return mechanism for private businesses.

In the first 10 months of 2018, private investment in China increased 8.8 percent compared to the same period in 2017, accounting for about 60 percent of the country's total fixed asset investment (FAI); the overall year-on-year growth rate of FAI in the country was 5.7 percent.

Since 2013, China has piloted mixed ownership reforms in the electricity, oil, gas, railway, aviation, telecommunications and defense sectors, with the aim of diversifying the equity structure of involved state-owned enterprises. Ning said the pilot will expand to more sectors in order to make better use of private capital.

In addition, the State Administration of Taxation (SAT) has issued a guideline with 26 detailed measures to facilitate the development of private businesses, including substantial tax cuts, particularly value-added taxes and tax exemptions for micro



and small firms and technology startups, and the reduction of nominal rates for social security contributions.

Measures will also be taken to address the difficulty and high costs of financing for private firms and to simplify tax payment procedures. China's taxation authority has always treated private enterprises equally, according to the SAT.

"Private enterprises have encountered some difficulties and obstacles, such as fewer financing channels, higher financing costs and increasing labor and land costs," Sang Baichuan, Dean of the Institute of International Economy at the University of International Business and Economics, told *Beijing Review*. "The tightening of environmental protection standards and uncertainties in international markets also pose challenges for them. The new measures are conducive to building the confidence of private businesses, and their implementation will help address these difficulties."

## Top-down action

While central government departments are rolling out supporting policies for private enterprises, local authorities in many regions also have made efforts to support the private sector.

"Localities should adopt more targeted measures in accordance with their own conditions," Sang said, adding that in regions that have a relatively high standard of industrialization, such as the Pearl and Yangtze River deltas, the private sector is stronger. The major tasks in these areas lie in industrial transformation and upgrading, making technological innovation extremely important, he explained.

However, as the cost of labor increases and the market environment fluctuates, the risk for innovation increases. Authorities in such regions should focus on stabilizing the market for the development of the private economy, and offer support for technological innovation, such as helping to reduce financing risks, Sang said.

Moreover, since there is a gap in the level of development between coastal and inland regions, a dual regional structure exists. As a result, many private firms in coastal provinces seek to transfer operations to other regions. Sang said authorities should assist them in these moves to help lower their relocation costs.

Chen Jining, Mayor of Beijing, revealed in November 2018 that a fund of 35 billion yuan (\$5.07 billion) has been set up to help ease liquidity risks for publicly traded firms that have pledged shares as collateral for



A wheat farm run by a private company in north China's Inner Mongolia Autonomous Region.

loans, adding that authorities will support private firms in issuing bonds.

"The Beijing Municipal Government will remove investment hurdles and allow private capital in the financing of over 60 projects, with a total investment of 100 billion yuan [\$14.4 billion]," Chen said.

On Dec. 10, Zhejiang Province, a leading private business hub, pledged that its provincial, municipal and county-level governments will spend 120 billion yuan (\$17.4 billion) in the next five years to boost hi-tech and internet companies, as well as medical research and development, according to Gao Yingzhong, head of the provincial Science and Technology Department.

## Targeted measures

In many old industrial bases, such as north-east China's Heilongjiang Province, where there are a large proportion of state-owned enterprises, and the private sector is relatively weak. The main task for Heilongjiang's local government is to encourage the development of private firms by creating a fair business environment for them to participate in market competition.

To stimulate the private sector in Heilongjiang, Zhang Qingwei, Secretary of the Heilongjiang Provincial Committee of the Communist Party of China, proposed

four steps at a recent symposium: stabilize the market and develop a cluster of large private enterprises with distinctive core businesses and core competitiveness; cultivate micro and small companies with supporting policies; revitalize unprofitable firms; and create new enterprises with new business models to boost the economy, expand consumption and drive employment.

"Private enterprises have flexible operating mechanisms, are highly sensitive to market trends and pursue the maximum possible returns for their investment. They are bound to capture market opportunities, and are good at understanding social needs and choosing investment and operation directions accordingly," Sang said.

He added that effective cooperation with state-owned enterprises gives private companies access to more financing channels, lower business risks and costs and more resources. State-owned enterprises can also benefit, as private firms are more market-oriented. "Thus, to combine their advantages, it is possible to achieve a win-win situation," Sang said. ■



Scan QR code to visit *Beijing Review's* website  
 Comments to [yanwei@bjreview.com](mailto:yanwei@bjreview.com)



## ADVERTISEMENT

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK

In re BHP BILLITON LIMITED SECURITIES LITIGATION

Civil Action No. 1:16-cv-01445-NRB

This Document Relates To:

ALL ACTIONS.

CLASS ACTION

SUMMARY NOTICE

**TO: ALL PERSONS AND ENTITIES WHO PURCHASED OR OTHERWISE ACQUIRED AMERICAN DEPOSITARY RECEIPTS (“ADRs”) OF BHP BILLITON LIMITED AND/OR BHP BILLITON PLC (COLLECTIVELY, “BHP”) DURING THE PERIOD FROM SEPTEMBER 25, 2014 THROUGH NOVEMBER 30, 2015, INCLUSIVE (THE “CLASS”)**

YOU ARE HEREBY NOTIFIED, pursuant to Rule 23 of the Federal Rules of Civil Procedure and an Order of the United States District Court for the Southern District of New York (the “Court”), that the above-captioned litigation (the “Litigation”) has been certified for the purpose of settlement only as a class action on behalf of the Class, except for certain persons and entities who are excluded from the Class by definition as set forth in the full printed Notice of Pendency of Class Action and Proposed Settlement (the “Notice”).

YOU ARE ALSO NOTIFIED that Plaintiffs in the Litigation have reached a proposed settlement of the Litigation for \$50,000,000.00, that, if approved, will resolve all claims in the Litigation.

A hearing will be held on March 5, 2019, at 11:00 a.m., before the Honorable Naomi Reice Buchwald, United States District Judge, at the United States District Court for the Southern District of New York, Daniel Patrick Moynihan United States Courthouse, 500 Pearl Street, Courtroom 21A, New York, NY 10007-1312, for the purpose of determining: (1) whether the proposed settlement of the claims in the Litigation for the principal amount of \$50,000,000.00, plus interest, should be approved by the Court as fair, just, reasonable, and adequate; (2) whether a Final Judgment and Order of Dismissal with Prejudice should be entered by the Court dismissing the Litigation with prejudice against Defendants, and whether the releases specified and described in the Stipulation of Settlement (the “Stipulation”) dated September 14, 2018 (and in the Notice) should be granted<sup>1</sup>; (3) whether the Plan of Allocation is fair, reasonable, and adequate and should be approved; and (4) whether the application of Lead Counsel for an award of attorneys’ fees and expenses and Plaintiffs’ expenses in connection with this Litigation should be approved.

IF YOU PURCHASED OR OTHERWISE ACQUIRED ADRs DURING THE PERIOD FROM SEPTEMBER 25, 2014 THROUGH NOVEMBER 30, 2015, INCLUSIVE, YOUR RIGHTS MAY BE AFFECTED BY THE SETTLEMENT OF THIS LITIGATION. If you have not received a detailed Notice and a copy of the Proof of Claim and Release form, you may obtain copies by writing to *BHP Securities Litigation*, Claims Administrator, c/o Gilardi & Co. LLC, P.O. Box 404090, Louisville, KY 40233-4090, or at [www.bhpsecuritieslitigation.com](http://www.bhpsecuritieslitigation.com).

If you are a Class Member, in order to share in the distribution of the Net Settlement Fund, you must submit a Proof of Claim and Release by mail (***postmarked no later than April 2, 2019***) or electronically (***no later than April 2, 2019***), establishing that you are entitled to recovery. If you are a Class Member and do not submit a proper claim form, you will not be eligible to share in the distribution of the net proceeds of the settlement, but you will nevertheless be bound by any judgments or orders entered by the Court in the Litigation.

If you are a Class Member and you desire to be excluded from the Class, you must submit a request for exclusion, in writing and in accordance with the instructions set forth in the Notice, to *BHP Securities Litigation*, Exclusions, c/o Gilardi & Co. LLC, 3301 Kerner Blvd., San Rafael, CA 94901, ***postmarked no later than January 15, 2019***. All Class Members who do not timely and validly request exclusion from the Class in response to the Notice will be bound by any judgment entered in the Litigation pursuant to the Stipulation.

Any objection to the settlement, the Plan of Allocation, or the fee and expense application must be in accordance with the instructions set forth in the Notice and ***received*** by each of the following recipients ***no later than January 15, 2019***:

*Court:*

CLERK OF THE COURT  
UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW  
YORK  
DANIEL PATRICK MOYNIHAN  
UNITED STATES COURTHOUSE  
500 Pearl Street  
New York, NY 10007-1312

*Lead Counsel:*

ROBBINS GELLER RUDMAN  
& DOWD LLP  
JOSEPH RUSSELLO  
58 South Service Road, Suite 200  
Melville, NY 11747

*Defendants’ Counsel:*

SULLIVAN & CROMWELL LLP  
BRENDAN P. CULLEN  
1870 Embarcadero Road  
Palo Alto, CA 94303

**PLEASE DO NOT CONTACT THE COURT, THE CLERK’S OFFICE, BHP OR BHP’S COUNSEL REGARDING THIS NOTICE.** If you have any questions about the settlement, you may contact Lead Counsel at the address listed above or by an e-mail to Lead Counsel at [bhpclaims@rgrdlaw.com](mailto:bhpclaims@rgrdlaw.com). Copies of certain pleadings and other documents filed in the Litigation can also be found at [www.bhpsecuritieslitigation.com](http://www.bhpsecuritieslitigation.com).

DATED: October 31, 2018

BY ORDER OF THE COURT  
UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK

<sup>1</sup> All capitalized terms used in this Summary Notice that are not otherwise defined herein shall have the meanings ascribed to them in the Stipulation, which is available at [www.bhpsecuritieslitigation.com](http://www.bhpsecuritieslitigation.com).





◀ Cobalt 27 Capital in Rotterdam has the largest private stockpile of the metal on Earth

3

**FEATURES**

|    |                                                                                                                                                                                          |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 38 | <b>The Miles That Separate, the Ties That Bind</b><br>A series of immigration raids has chilled the mutually beneficial relationship between Mount Pleasant, Iowa, and Chocox, Guatemala |
| 48 | <b>Grand Theft Cobalt</b><br>A massive metal heist goes down in Europe's busiest port                                                                                                    |



|              |    |                                                                                                                                    |
|--------------|----|------------------------------------------------------------------------------------------------------------------------------------|
| ■ IN BRIEF   | 7  | Wells Fargo settles; Elizabeth Warren is (almost) running                                                                          |
| ■ AGENDA     | 8  | The Census Bureau in court; counting Santa's receipts                                                                              |
| ■ OPINION    | 8  | Getting serious about illegal fishing                                                                                              |
| <hr/>        |    |                                                                                                                                    |
| ■ REMARKS    | 10 | Trump crows about the market, but 2018 wasn't great                                                                                |
| <hr/>        |    |                                                                                                                                    |
| 1 BUSINESS   | 14 | Desperately seeking the french-fry boy                                                                                             |
|              | 16 | It's a good time to fly to Iceland (unless you're Icelandair)                                                                      |
|              | 17 | The FDA ponders putting doctors in your pocket                                                                                     |
| <hr/>        |    |                                                                                                                                    |
| 2 TECHNOLOGY | 18 | The driverless future is stuck in neutral                                                                                          |
|              | 19 | Learning German is just as fun as <i>Candy Crush</i>                                                                               |
|              | 20 | Modern art becomes even more, um, cryptic                                                                                          |
| <hr/>        |    |                                                                                                                                    |
| 3 FINANCE    | 22 | ▼ Are equity cash-outs a lifeline for veterans—or a trap?                                                                          |
| <hr/>        |    |                                                                                                                                    |
|              | 24 | China's challenge: Getting foreigners into its bond market                                                                         |
|              | 25 | Nili Gilbert on the David Rockefeller Fund                                                                                         |
| <hr/>        |    |                                                                                                                                    |
| 4 ECONOMICS  | 26 | That which doesn't kill the EU always makes it stronger                                                                            |
|              | 29 | AMLO's wild idea: Turn Mexican oil into Mexican gasoline                                                                           |
|              | 30 | The international students driving Canada's growth                                                                                 |
| <hr/>        |    |                                                                                                                                    |
| 5 POLITICS   | 32 | The NRA extends its very long arms to Russia.<br>And Brazil and Australia and Italy ...                                            |
| <hr/>        |    |                                                                                                                                    |
| ■ PURSUITS   | 55 | Twenty-one trips for 2019: Plot an adventure to<br>Chad or Chile, or see a new side of an old favorite<br>like Paris or Palm Beach |
| <hr/>        |    |                                                                                                                                    |
| ■ LAST THING | 64 | Electricity use is up. Should we blame the AC or Bitcoin?                                                                          |

How to Contact  
*Bloomberg  
Businessweek*

Editorial  
212 617-8120

Ad Sales  
212 617-2900  
731 Lexington Ave.,  
New York, NY 10022

Email  
bwreader  
@bloomberg.net

Fax  
212 617-9065

Subscription Customer  
Service URL  
businessweekmag  
.com/service

Reprints/Permissions  
800 290-5460 x100  
or email  
businessweekreprints  
@theygsgroup.com

Letters to the Editor  
can be sent by email,  
fax, or regular mail.  
They should include  
the sender's address,  
phone number(s),  
and email address if  
available. Connections  
with the subject of  
the letter should be  
disclosed. We reserve  
the right to edit for  
sense, style, and space.

Follow us on  
social media

Facebook  
facebook.com/  
bloomberg  
businessweek/

Twitter  
@BW

Instagram  
@businessweek



Cover:  
Photo illustration by  
Justin Metz; photo:  
Stefan Rousseau/WPA  
Pool/Getty Images





Sheryl Sandberg, Facebook  
Harald Krüger, BMW Group  
Sergei Polunin, Ballet Dancer  
Fatoumata Ba, Janngo  
Grazia Vittadini, Airbus



# Optimism & Courage

Europe's Innovation  
Conference

January 19–21, 2019, Munich

Apply now for Tickets: [www.dld.co](http://www.dld.co)

DLD Munich Strategic Partners



**Lufthansa**

**wirecard**





END  
FAMILY  
FIRE

8 kids a day are accidentally killed  
or injured by **FAMILY FIRE**.

**FAMILY FIRE** is a shooting involving an  
improperly stored gun, often found in the home.

[ENDFAMILYFIRE.org](http://ENDFAMILYFIRE.org)

Ad  
Council



● Oracle co-founder Larry Ellison and Walgreens Boots Alliance's global human resources chief, Kathleen Wilson-Thompson, were tapped by Tesla to join its board to provide Elon Musk with more of the outsider oversight demanded by regulators. On Jan. 2, Tesla announced price cuts after disappointing third-quarter deliveries.

● Apple cut its first-quarter revenue guidance, citing China's "economic deceleration" and other factors.

On Jan. 2 the company said it now expects sales of about \$84 billion. Its original forecast predicted a range of \$89 billion to \$93 billion. Shares plunged in after-hours trading by as much as 8.5 percent.



● On Jan. 1, as the U.S. government remained partially shut down over Trump's demand for a wall, Central American migrants sought cover from tear gas fired by U.S. border agents to keep them from crossing into San Diego from Tijuana.

● "His conduct... particularly his actions last month, is evidence that the president has not risen to the mantle of the office."

Mitt Romney, now a senator from Utah, commenting on President Trump in a *Washington Post* op-ed.

● U.S. Senator Elizabeth Warren became the first Democrat to announce the formation of a presidential exploratory committee. The decision allows her to raise funds and hire staffers for her likely bid for the White House in 2020.



● Italy's Parliament passed a budget after a monthslong impasse with the European Union over spending plans by the populist government that pushed the deficit above the bloc's norm. The original shortfall—2.4 percent of gross domestic product—was trimmed to 2.04 percent.

● A court in Tokyo extended the detention of former Nissan Chairman Carlos Ghosn until Jan. 11.

He's been in custody since Nov. 19, after being arrested on a number of charges, including underreporting his compensation.

● Wells Fargo agreed to a **\$575m** settlement to all 50 U.S. states to resolve claims emanating from the 2016 revelation that, among other things, its employees created fake accounts for real customers to reach sales quotas.

● Brazil's new president, Jair Bolsonaro, stripped an agency in charge of indigenous land of its power to create reserves. That responsibility now belongs to the agriculture ministry, which is led by the former chief of the farm lobby.



● Purchasing managers indexes declined in China, the U.S., and much of Asia and Europe amid trade wars and slowing economies. The U.K.'s increased, but that likely indicates that companies are stockpiling for a potentially disruptive Brexit.

- Sweden hasn't had a formal government since a Sept. 9 vote failed to produce a clear winner. New polls may be required.
- Oil prices fell 25 percent in 2018, the worst annual showing since 2015. WTI futures ended the year at \$45 a barrel.
- Chelsea Football Club agreed to buy Christian Pulisic from Borussia Dortmund for \$73 million, a record for a U.S. player.
- The main hedge fund of David Einhorn's Greenlight Capital closed the year with a 34 percent decline.





## ► New Year Celebrations...or Regrets?

The embattled retail industry will get a clearer idea of just how good the shopping season has been when two big companies release their December sales and revenue figures. Costco Wholesale reports on Jan. 9, and Target follows the next day.

► The U.S. Supreme Court will hear arguments on whether a law on debt collection abuse applies to home foreclosures where there's no court supervision.

► Most major health-care companies will make presentations at the 37th annual J.P. Morgan Healthcare Conference in San Francisco on Jan. 7-10.

► Homebuilder Lennar announces fourth-quarter earnings on Jan. 9, giving a glimpse into how the industry has been affected by economic uncertainty.

► General Motors' investor webcast on Jan. 11 will update analysts on auto demand and the effect of tariffs on its global business.

► A trial on the U.S. Census Bureau's decision to ask respondents whether they're American citizens begins on Jan. 7 in a federal court in California.

► A U.S. delegation will be in Beijing for the first face-to-face meetings on trade since the countries' presidents agreed to a truce on Dec. 1.

## ■ BLOOMBERG OPINION

# Fighting Over Fish

● The illegal harvest of seafood is a serious global security threat. Documenting catches is one way to stop it

Seafood is the main source of protein for 3 billion people worldwide, and the industry employs more than 55 million workers. But with 90 percent of fish stocks depleted or overfished and the world's reefs dying, fleets are increasingly operating illegally in other countries' exclusive waters and in areas of the high seas that international agreements protect. Experts say at least 20 percent of the global harvest comes from illegal, unreported, and unregulated fishing, which brings in an estimated \$15.5 billion to \$36 billion a year.

Failing fisheries will lead to shortages of food and large migrations of people—fueling war, crime, and terrorist recruitment. Unlawful fishing has increased tensions among nations in the South China Sea and the Bay of Bengal, along the Patagonian coast, and in other areas. Many illegal fishing operations are run by criminal organizations that enslave their crews and use the ships for human trafficking, hostage-taking, piracy, and transporting drugs, weapons, and so-called blood diamonds. Iranian fishing boats have been caught trying to smuggle arms to Houthi rebels in Yemen.

In short, illegal fishing needs to be taken seriously as a global security threat. Governments are doing too little to fight it—and some are encouraging the practice. The

most notorious violator is China, the largest consumer and exporter of seafood. Beijing offers subsidies to deep-water operators, and its coast guard accompanies fleets when they violate neighbors' exclusive economic zones. Indonesia has seized and sunk hundreds of Chinese boats in its waters.

China certainly isn't the only rule breaker. The U.S. has accused Central and South American countries of illegal fishing, and nongovernmental groups have documented infractions by European countries, Italy and Spain among them.

In the short term, the U.S. should step up efforts by its Navy, its Coast Guard, NASA, and the National Oceanic and Atmospheric Administration to use their sophisticated sensors and satellites to track down fishing ships operating without required transponders. But the key to ending the pilaging is transparency. Governments and agencies already collect tons of data, but they share it poorly and keep much of it private. Global corporations including Google are helping nongovernmental groups track and visualize data. The aim is to let customers see what has been legally caught and what hasn't, so market pressure can do its work.

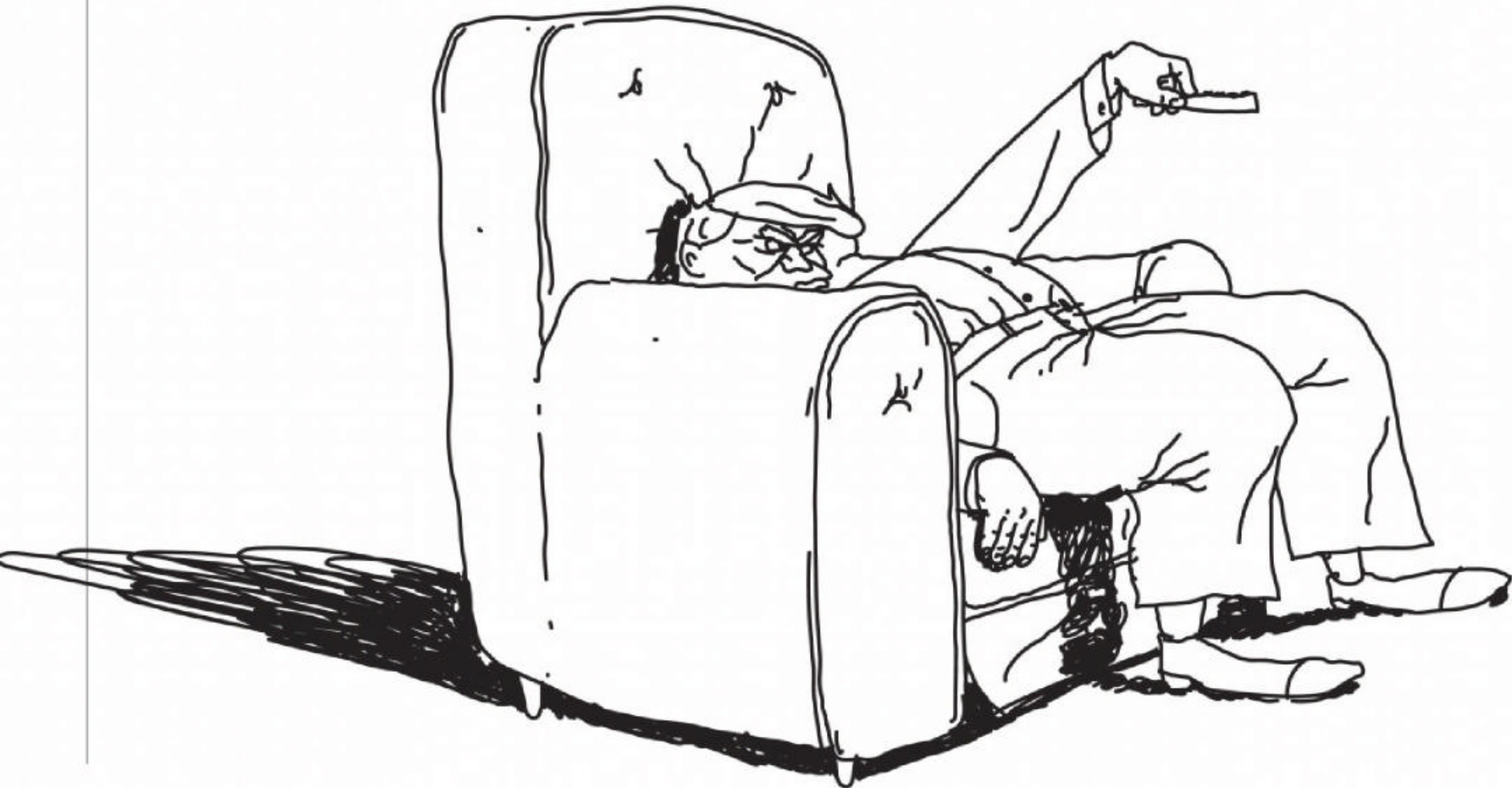
This attempt at transparency could amount to something, but it's by no means enough. Governments should comply more fully with the many treaties on oceanic resources they've already signed. For instance, more than 50 countries have signed a pact to better manage their ports by denying entry to boats that can't document their catches. Enforcement at major ports has been pretty good, but illegal fishermen head to smaller ones that still lack monitoring. **B**



Abu Dhabi Accra Amman Amsterdam  
Athens Bangalore Bangkok Beijing  
Beirut Cairo Calgary Cape Town  
Caracas **The** Charlotte Chicago **global**  
Copenhagen Denver Doha Dubai  
Dublin Düsseldorf Edinburgh Frankfurt  
Geneva Hanoi Helsinki **standard** Hong  
Kong Houston Islamabad Istanbul  
Jakarta Jerusalem Johannesburg  
Karachi **for** Kiev London Luxembourg  
Madrid Manila **business** Melbourne  
Mexico City Milan Montreal Moscow  
**reporting.** Mumbai Munich Nairobi  
New Delhi New York Osaka Oslo  
Ottawa Prague Rio de Janeiro Riyadh  
San Francisco **Follow it all.** Santiago  
Seattle Shanghai Singapore São  
Paulo St. Petersburg Stockholm Taipei  
**bloomberg.com/subscriptions** Tallinn  
Tel Aviv Tokyo Toronto Toulouse  
Vancouver Vienna Vilnius Warsaw  
Washington D.C. Warsaw Wellington  
Zagreb Zurich **Bloomberg**



# The Trump Slump





## ● The president claimed credit for stock market records. Does he deserve blame for the plunge?

● By Peter Coy

Green means up and red means down in the stock market. Lately there have been many red days. But the true color of today's market is golden orange—the hue of the pompadour atop the head of President Donald Trump. Because for better and for worse, this has become Trump's stock market. Until October, the extended bull market was reasonably called the Trump Bump. The decline over the past few months, particularly since the start of December, is the Trump Slump.

Few would dispute that Trump is a volatile personality who's having a volatile presidency. He's shaken the establishment to its roots. Yet for most of his time in office, volatility in the stock market was below its long-term average, with the exception of a spell in February and March. Investors' calm always seemed a bit out of step with reality. But fluctuations do tend to increase when prices are trending down, and that's exactly what happened in 2018's fourth quarter. The Chicago Board Options Exchange Volatility Index hit 36 the day before Christmas, up from below 15 in the summer and early fall.

America finally has a stock market to match the man in the Oval Office.

One question to ask at this point in the turmoil is how much Trump has affected the stock market—for better during the bump and for worse during the slump. The opposite question is how much the worst year for stocks since 2008 has affected Trump. Will the market rout chasten him, cause him to retreat from some of the policies and language that have sent markets into a tizzy? Or will it drive him to attack the status quo even more ferociously to prove himself right and recapture some of that bull-market magic?

The conventional wisdom among economists is that presidents get too much credit and blame for the ups and downs of stock indexes. They are, it is said, like a mahout astride an elephant that goes wherever it wants to. This makes some sense. The fact that stocks have done better on average under Democratic presidents than Republican ones (back to Herbert Hoover) isn't proof Democrats have a special touch for equities.

But there are times when presidents do matter, a lot, and this is one of them. The Trump tax cuts passed one year ago are an example. They directly benefited the stock market by boosting companies' after-tax profits, which of course underpin stock valuations. Trump's deregulation agenda also boosted stock prices. The federal government published fewer than 20 "economically significant" regulations in 2017, down from close to 100 in 2016 and the least since the beginning of the Reagan administration, according to

George Washington University's Regulatory Studies Center.

Some might argue that it was a mistake to cut corporate taxes at a time of soaring deficits, or to ax regulations intended to protect the public's health and safety. But the changes clearly did help the stockholder class by lifting share prices. They also helped smaller companies that aren't publicly traded. "The president has been more aggressive than any previous president we can remember in creating a good environment for people who run their own businesses," says Jack Mozloom, senior vice president for public affairs at the Job Creators Network, a Dallas-based small-business advocacy group.

Those Democrats who hate to credit Trump for anything positive are loath to admit that the stock market's upward march had anything to do with him, preferring to attribute the rise to his predecessor or the Federal Reserve or just plain luck. But it's hard to ignore that stocks jumped in the days after his surprise election and continued to gain ground for almost two years. That's the Trump Bump.

There's even a theory as to why volatility remained low despite the Trump chaos: It's that investors couldn't read the confusing signals from Washington, so they ignored them. "One day NATO is obsolete, another day it is not. One day China is a currency manipulator, another day it is not," financial economists Lubos Pastor and Pietro Veronesi of the University of Chicago Booth School of Business wrote in May 2017 for VoxEU.org, a website of the Centre for Economic Policy Research. "Markets continue listening to politicians, but they pay less attention than they used to."

Sometime around the start of October, though, something soured for stocks. The question is what—and who's to blame. After the failed Bay of Pigs invasion, a rueful President John F. Kennedy said, "Victory has a thousand fathers; defeat is an orphan." Trump has turned JFK's expression on its head. In a string of exultant tweets he took credit for the bull market; now that stocks are falling, he's tried to pin the decline's parentage on others, including Democrats (for pushing the Russia investigation) and Jerome Powell, his choice to chair the Federal Reserve.

There's something to be said for Trump's defense. It's true that the Powell Fed isn't doing stocks any favors. Investors really don't like rising interest rates. The Meltdown Before Christmas came on the heels of a Dec. 19 statement from the Federal Open Market Committee that skated past the market's weakness, cited "strong" economic growth, and said "some further gradual increases" in rates would likely be necessary.

But that shouldn't let Trump off the hook. While markets, like wayward elephants, do tend to have minds of their own, it's also possible to identify specific ways in which Trump has contributed to the downturn. His prosecution of the trade war with China, in particular, has rattled investors. The 90-day truce between the two nations, agreed upon at the Group of 20 summit in Buenos Aires on Dec. 1, has done little to buoy the stock market because investors realize that hostilities could erupt again when the cease-fire ends in March. ►



◀ The S&P 500 price-earnings ratio has fallen 13 percent since September. Trump, in general, was the No. 1 thing keeping institutional investors awake at night in a mid-December survey by investment bank RBC Capital Markets.

Trump's Twitter attacks on Powell could also be backfiring. Even some market analysts who think the Fed should back off from raising interest rates say that the president's messaging could induce Powell to demonstrate his independence by forging ahead with unnecessary hikes. Or, for bond investors worried that the Fed will accede to the president, there's an expectation of accelerating inflation. That would cause bond prices to fall—which generally causes stock prices to fall as well.

Trump's leadership style is also wearing poorly. His strategy of keeping people guessing and off balance might work well with adversaries, but it alienates friends. "I'm not aware of another U.S. president trying to weaponize uncertainty. And for good reason: It harms American interests as well as foreign ones," says Steven Davis, a professor at Booth who helped develop an economic policy uncertainty index. (The news-based version of the uncertainty index is just below the top 10th of its 34-year range of values.)

It's true that the stock market isn't the best metric for judging a president. Stocks can go up even if the president is performing badly and down even if he's doing well. For example, just because getting tough on China is bad for some tech stocks doesn't mean it's the wrong thing to do. Conversely, many of the things that are most troublesome about Trump don't show up in stock indexes—the coarsening of the public discourse, the damage to America's global alliances. And some potentially harmful actions, such as trying to weaken rules on mercury emissions from coal plants, could boost certain stocks.

Still, there's rough justice in calling out the president for the stock market's decline, simply because he so often cited its rise as evidence of his success. A sample from 3:04 a.m. on Dec. 19, 2017: "DOW RISES 5000 POINTS ON THE YEAR FOR THE FIRST TIME EVER - MAKE AMERICA GREAT AGAIN!" "He definitely believes it's a measure of how he is doing and how his policies are performing," Corey Lewandowski, Trump's former campaign manager, said in an interview at a Trump Hotel book party on Dec. 11.

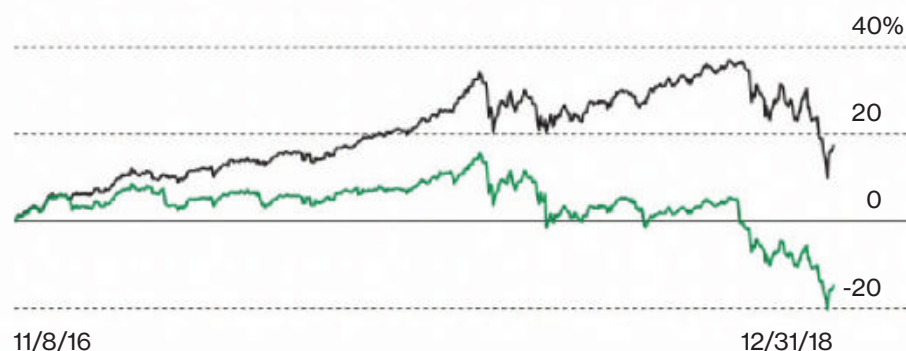
At times, Trump seems to be using presidential announcements to goose the market. Stocks rose on Dec. 31, for example, after a weekend tweet in which he said that a phone call with Chinese President Xi Jinping on trade had gone well. But that tactic goes only so far: Investors can react badly if reality doesn't match expectations. Even some of Trump's biggest supporters see his boasting as an error. "If you're going to tie yourself to the stock market, you're going to go down when it goes down," says Mozloom, the small-business advocate. "As a political matter, he should have anticipated this."

What Trump does next may depend on what the stock market does next. If it recovers swiftly from what he called, on Jan. 2, a "little glitch," this episode will be forgotten like a bad dream. But what if the market goes down further or

## Crisis of Confidence?

Change since Trump's election

■ S&P 500 ■ S&P 500 price-earnings ratio



DATA: COMPILED BY BLOOMBERG

simply bumps along at this lower level? One theory is that this would strengthen the hand of some of Trump's more moderate advisers, who have frequently tried to steer him away from extreme actions by warning of negative market reactions. The president appears to have more respect for the judgment of the market than for the advice of academics and pundits. Then again, Street cred didn't help Gary Cohn, Trump's former chief economic adviser, when he tried to stop Trump from imposing high tariffs on steel and aluminum imports. The showdown over the tariffs led to his resignation in March (upon which stocks duly fell).

Now it's Treasury Secretary Steven Mnuchin who's in the hot seat. One sign that he knows he's vulnerable is his desperate attempt to buoy stock prices by issuing a statement the Sunday before Christmas saying the nation's six biggest banks had "ample liquidity" for lending. That's the kind of reassurance that's usually reserved for a crisis. Trump expressed confidence in Mnuchin after that episode, calling him talented and smart, but such reassurances have had short shelf lives.

There's a scene in the movie *Lost in America* in which Albert Brooks finds his wife, played by Julie Hagerty, at a roulette wheel in Las Vegas, having gambled away the family's nest egg, maniacally repeating, "Come on 22!" For Trump, the equivalent would be doubling down on harmful policies in the belief—or desperate hope—that eventually they will work. The further the stock market falls, the greater the temptation to do something drastic to get back in the black. In game theory, this is known as gambling for resurrection.

Trump is a long way from that scenario. After all, the market is still up since his election. But he is shedding the advisers—like Cohn, former Secretary of State Rex Tillerson, and former Defense Secretary James Mattis—who tried to keep him from indulging in his darkest impulses. Meanwhile, a partial government shutdown drags on, the Mueller probe seems to be coming to a head, and Democrats are ready to hound him as they take control of the House of Representatives.

The Trump Slump is a bigger phenomenon than just a downturn in the stock market. But every red day on Wall Street is another punch to the president's gut. **B**

—With Joshua Green and Shawn Donnan





**Hoping  
can't help a kid  
struggling  
with drugs.**

**But together,  
we can.**

We partner with parents and families to get help for kids whose drug or alcohol use threatens their lives with addiction.

We provide the science-based information parents need to understand substance use and programs to help parents effectively engage with their teens and young adults.

Our counselors will listen to parents and provide one-on-one guidance for families struggling with their son or daughter's use.

And we offer support from a network of families that have successfully faced this disease.

**We're here to help.  
Our services are free.  
Let's work together.**

**Call our toll-free helpline,  
1-855-DRUGFREE.  
Or visit us at [drugfree.org](http://drugfree.org).**





# An Unhappy New Year For Restaurants

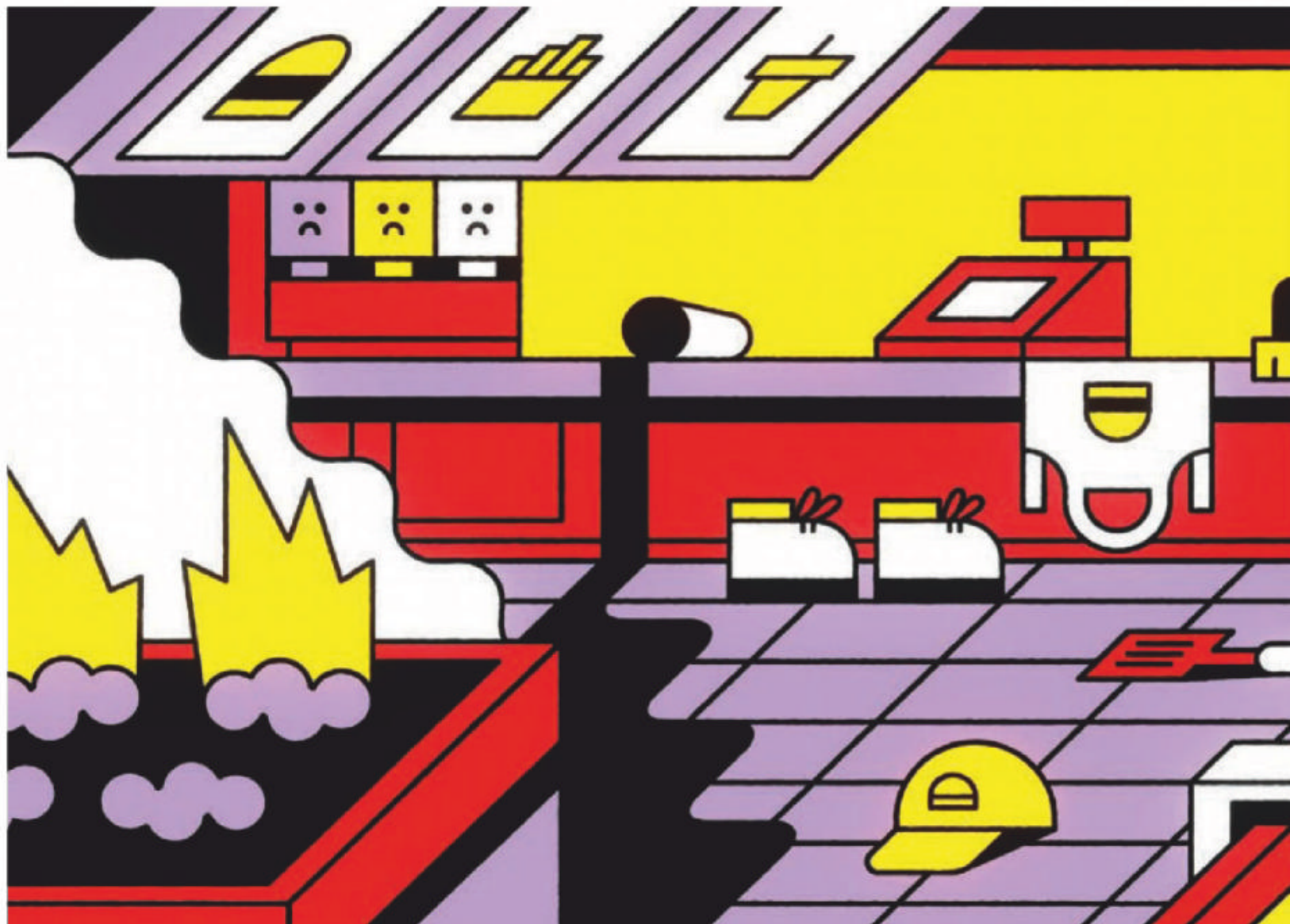
● The holiday hiring crunch may be over, but finding workers won't be much easier in 2019

Every autumn, retailers hire large numbers of seasonal workers to handle the rush of holiday business. Then, after the new year kicks in, many of those temps typically rejoin the ranks of low-skilled job seekers, eager for work and often willing to accept meager pay. That cycle has long been good for the restaurant industry, with food preparation workers and servers receiving mean annual wages that were half those of the U.S. average, according to May 2017 U.S. Bureau of Labor Statistics data.

It may not work out that way in 2019. Fewer teens are in the workforce nowadays, reducing the number of job seekers for low-wage work and helping

raise the pay rates needed to woo those who are. Also, minimum wage increases for lower-skilled workers at companies such as Amazon.com, Walmart, and Target are making it more difficult for restaurants to compete for talent, forcing them to try everything from social media campaigns to quarterly bonuses to entice applicants. "The last 18 to 24 months, it's been very competitive, no matter what time of year," says Bjorn Erland, vice president for people and experience at Yum! Brands Inc.'s Taco Bell chain. "I don't think it's going to ease up much just because the holidays are over."

Many franchisees, who do most fast-food hiring, are loath to raise wages, which must be offset by higher menu prices. They count on ample pools of workers willing to accept modest pay. So the falloff in employment among postmillennials, those less than 22 years old, is particularly troublesome for restaurants that have depended on young workers





since the days of soda jerks and carhops. Just 19 percent of 15- to 17-year-olds had jobs in 2018, compared with almost half in 1968, according to a Pew Research Center study published in November. It wasn't much better for 18- to 21-year-olds: In 2018, 58 percent had been employed in the previous year, down from 80 percent in 1968, Pew says.

That's making restaurants rethink how they recruit and retain young workers. Taco Bell has started holding "hiring parties" with free nacho fries to draw prospects. Tom Douglas, vice president for operations at Golden Gate Bell, which operates 80 Taco Bell locations in and around San Francisco, has gone further: He's started using software to connect with potential hires. The program sends prospects text messages with links to its career page, along with occasional food freebies to lure candidates. Golden Gate Bell, which employs about 1,800 and competes with Wendy's, McDonald's, and big-box retailers for employees, also recently started a quarterly bonus program for hourly staff.

"The traditional way of trying to hire folks just isn't working," says Douglas. "We're just trying to make ourselves a little bit different and stand out from the competitors."

Actions that increase employee retention are also getting a lot of attention in the high-turnover business. The White Castle hamburger chain is

using an employee mobile app that allows hourly staff to swap shifts at the last minute when conflicts inevitably arise. And Sticky Fingers Ribhouse, an 11-store barbecue chain in South Carolina, is asking employees for their opinions. It recently surveyed staff about its new rib recipe, along with their happiness with its uniforms. "The younger labor market, they really want to feel connected to a brand," says Will Eadie, global vice president for strategy at WorkJam, which provides training and other digital labor services through a mobile app for clients including restaurants and retailers such as Target Corp. and Shell gas stations.

How desperate are fast-food operators to reach the right people? Instead of business cards, managers at Church's Chicken outlets in October started handing out recruiting cards that say, "We are looking for great talent like you!" The cards include phone numbers and emails for cook and cashier prospects to get in touch.

Meanwhile, Applebee's, a dining chain owned by Dine Brands Global Inc., is trying to offset rising wage costs with kitchens that are easier for workers. No longer are cooks hand-cutting steaks, and it's adding other foods that take less prep, Chief Executive Officer Steve Joyce said in December. "It's hard to find quality folks to work in the restaurants," he said. "We've got to make sure that we're doing everything we can to make every other part of the restaurant as efficient as possible."

Increasingly, chains are hedging their traditional bets on younger workers by boosting hiring pitches toward much older workers. Both McDonald's Corp. and Church's have said senior citizens will be a focus area to build out their ranks in 2019. Other chains including Bakers Square and Village Inn are paying to list jobs on the AARP website.

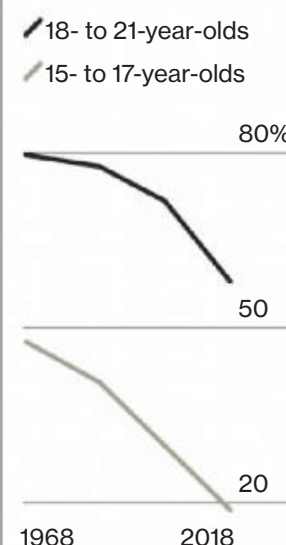
Some restaurants simply hope that handing out more cash will do the trick, especially for managers. A Naf Naf Middle Eastern Grill in Madison, Wis., is offering \$500 hiring bonuses for shift leaders and assistant managers. A Wendy's in New Hampshire last year tried luring candidates with \$1,000 bonuses.

In the long term, restaurants need to find new ways to work around shortages because the tight labor market isn't going away anytime soon, says Michael Harms, vice president for operations at researcher TDn2K, which tracks restaurant industry employment trends. "Restaurants are going to have to rely on technology to replace these workers," he says. "I don't see a lot of relief on the way."

—Leslie Patton

**THE BOTTOM LINE** With fewer teens and young adults holding jobs and other employers raising wages, restaurant chains are trying new ways to attract talent.

● Share of U.S. civilians employed at some point during the year





# Europe's Airlines Face a Chilly Winter

● Limited consolidation has left carriers with profit-draining overcapacity

Midwinter in Iceland can be brutal, with temperatures struggling to rise much above freezing and daylight spanning barely four hours. For the North Atlantic island nation's two main airlines, Icelandair Group Hf and Wow Air Hf, times are equally bleak. With competition from larger carriers depressing fares and fluctuating oil prices making it tougher to manage costs, mounting losses and weak balance sheets are stoking concern about the airlines' future.

Iceland isn't alone in feeling the chill. Six European airlines have gone bust since June, while debt-laden Norwegian Air Shuttle has been targeted for takeover, Alitalia has been in insolvency for 18 months, and Britain's Flybe Group is seeking a buyer as it tries to preserve cash. Even once-thriving operators such as Finnair Oyj have seen their share prices plunge as investors fear profit headwinds.

That's a far cry from the record earnings achieved by U.S. airlines since a consolidation spree handed pricing power to enlarged supercarriers American Airlines, Delta, and United Continental. Wow founder Skuli Mogensen says the difference is that the pace in Europe is still being set by discounters Ryanair, EasyJet, and Wizz Air, dragging down margins for carriers across the region.

"These are all very aggressive and still fast-growing operators, and as a result the whole [European] market becomes much more aggressive," Mogensen says. "If you look at North America, there's been a lot of consolidation, and as a result it has become less competitive."

What Europe's poorest performers have in common is a solo status that provides little insulation from a wider earnings squeeze. The region's three big airline groups include nine former national carriers, representing formidable opposition for companies that aren't part of that club and lack the clout of bigger independents such as Ryanair Holdings Plc.

The Nordic region is especially exposed since even its leading carriers—SAS, Finnair, and Icelandair—were left out of a merger spree that began in 2004 led by British Airways, Air France, and Lufthansa. Breakneck expansion at Norwegian Air has further weighed on its Nordic brethren's profits—and resulted in a cash squeeze at the discounter that's prompted bids from Deutsche Lufthansa AG and BA parent IAG SA, keen to tap into its network of low-cost trans-Atlantic routes.

Those routes are also central to the fortunes

of Icelandair and Wow. The two carriers, which use smaller single-aisle jets to help keep a lid on expenses, have developed Reykjavik into a hub linking cities in Europe and North America that generally have no direct services.

For Iceland, the crisis threatens to put a damper on a growing tourism industry that's been vital in filling a gap in the economy left by the 2008 collapse of the island's banking system.

One Nordic carrier, Primera Air, was among the six European airlines that collapsed in the second half of 2018. The Scandinavian specialist in holiday flights followed Norwegian Air into discounted trans-Atlantic services before running out of cash. Europe's patchwork of charter carriers and nonaligned operators accounted for the other five victims: Swiss carriers PrivatAir and Skywork Airlines, Small Planet and Azur Air of Germany, and Belgium's VLM.

But the biggest operators, too, are struggling to boost margins as a glut in seating capacity depresses fares in even the healthiest markets. While the International Air Transport Association forecasts global airline profits will surge 10 percent in 2019, to \$35.5 billion, European carriers will see their earnings slide. That's because of competition and a delay in the effects of cheaper fuel, due to greater use of fuel hedging contracts that locked in some higher prices. North American earnings should be twice those for Europe, IATA estimates, even though traffic in both regions is similarly dominated by three main carriers.

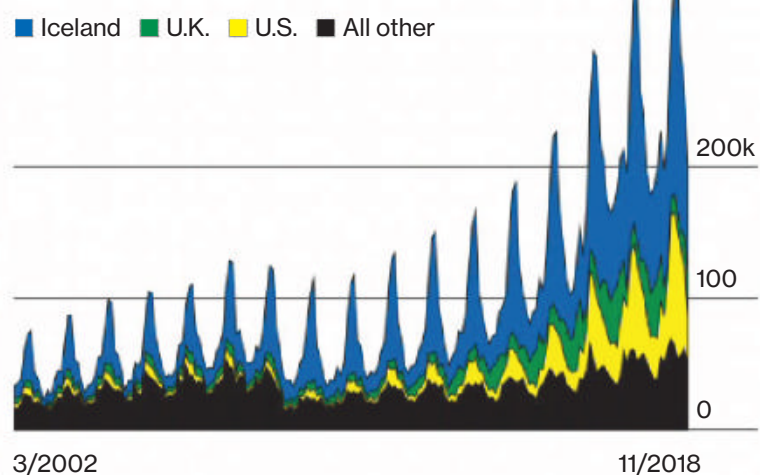
Craig Kreeger, who ran Britain's Virgin Atlantic Airways Ltd. until November after working more



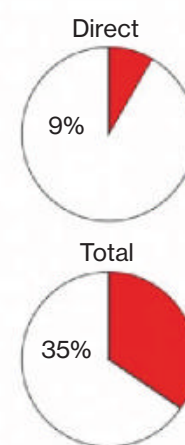
● Mogensen

## Iceland's Economy Runs on Its Airlines

Passengers through Keflavik airport, by citizenship



Tourism's contribution to Iceland's GDP





than two decades at American Airlines Group Inc., says European mergers have shown too much regard for local political sensitivities and failed to deliver the capacity cuts needed to boost profitability. “We’ve had acquisitions in Europe, but I don’t think we’ve had a lot of actual consolidation,” he says. “The difference is in the rationalization of capacity. If you look at what’s happened in the U.S., where there are no national borders, we’ve had both acquisitions and rationalization.” —*Christopher Jasper*

**THE BOTTOM LINE** Although six European airlines went bust in 2018, there’s still too much discounting on continental and trans-Atlantic routes for the rest to enjoy the benefits of consolidation.

# The App Will See You Now

● Trump’s FDA considers letting mobile devices prescribe drugs for some chronic ailments

Smartphones have revolutionized many aspects of modern life, from trading stocks to taking photos to hailing a cab. The next big task for the diminutive devices may be a more serious one: determining whether patients would benefit from treatments for chronic conditions such as high blood pressure and cholesterol and then granting them access to such drugs.

U.S. health officials expect to propose in the first half of 2019 a plan that would limit the need for potentially millions of people to interact with a doctor and instead allow them to use their phone to determine their need for, say, Pfizer Inc.’s cholesterol-fighter Lipitor—and then give them a code or ticket to pick it up on their pharmacy’s shelf, next to the aspirin and cough syrup.

Food and Drug Administration Commissioner Scott Gottlieb sees smartphones and technologies such as in-store video kiosks as a way to enable the switch from prescription-only to over-the-counter sales for more drugs. This could give consumers easier access to crucial medications and be a boost for branded pharmaceutical companies that might otherwise lose revenue to low-cost generic competition. “The over-the-counter product can breathe new life into the product commercially,” says Christopher Stomberg, an associate

director at NERA Economic Consulting who specializes in health care and life sciences. “The over-the-counter product, what it introduces for the manufacturers, is the potential to reach some of these populations where the generic prescription may not be able to reach.”

Those could be people who don’t want to see a doctor or those without insurance who balk at the expense of a visit, Stomberg says. About 45 percent of the 78 million U.S. adults who might benefit from cholesterol medication don’t take it, says the U.S. Centers for Disease Control and Prevention. If statins were available over the counter, more than 68,000 heart- and stroke-related deaths, plus hundreds of thousands of major coronary events, would be averted over 10 years, Stomberg and other health policy experts wrote in the *American Journal of Managed Care* in 2016.

Besides cholesterol pills, the new rules could cover medicines for high blood pressure, migraines, and asthma—maladies that affect millions and offer plenty of data about existing medicines’ efficacy and safety. There’s also a shot at untapped revenue for branded drugmakers who successfully reach the millions of potential patients who aren’t receiving prescriptions from a doctor. Already, sales of cholesterol-lowering treatments alone totaled \$10 billion in 2016, says Bloomberg Intelligence.

There is some risk for branded drug manufacturers as insurance generally doesn’t cover over-the-counter medications. As an incentive for drugmakers to make the switch, they can be eligible for up to three years of selling their over-the-counter treatment free of generic competition. Gottlieb says some companies have already submitted applications to switch a handful of medicines. “It’s obviously early days,” he says. “We’re having a lot of conversations, so we’ll see the pipeline build.”

More than 20 prescription drugs have made the over-the-counter switch in recent years, including allergy and heartburn drugs. The sticking point for treatments such as statins and asthma inhalers has been studies that voiced uncertainty about the ability of millions of Americans to accurately determine on their own whether they needed them.

Enter smartphone apps, which FDA officials believe could be more effective than printed materials in helping consumers determine if they need a drug. “Patients want affordable options,” Gottlieb says. “It’s expensive and hard to go to the doctor. We want to facilitate compliance [with a medication regimen], and this is one way.” —*Anna Edney*

**THE BOTTOM LINE** The FDA in 2019 will issue guidelines on sales of drugs for some chronic ailments without a doctor or prescription. Mobile quizzes could determine who is allowed to receive the drug.

● Number of American adults considered good candidates for cholesterol medication

**78m**

Number of Americans who need cholesterol drugs but who don’t take them

**35m**



# Delays Ahead For Self-Driving Cars

CES is more driverless-centric than ever, but the payoff remains well down the road

In December, Waymo LLC, the leading driverless-car company, brought out the world's first commercial robo-taxi service. But for now, the service is only available to about 400 test families in suburban Phoenix, and each of its converted Chrysler minivans still has a person at the wheel in case anything goes awry.

"It's a pretty glaring indication that we're not there yet," says Matthew Johnson-Roberson, co-director of the University of Michigan's Ford Center for Autonomous Vehicles, who's working with automakers to develop robot rides. Waymo, owned by Google parent Alphabet Inc. and recently valued at \$250 billion by Jefferies Research LLC, declined to comment. In a blog post, Chief Executive Officer John Krafcik said the human safety drivers were at work in Arizona to make riders feel more comfortable.

Waymo's timid rollout is the latest speed bump for a technology touted as certain to save the world from road deaths. As auto and tech giants converge on Las Vegas for the consumer electronics show known as CES, which formally kicks off on Jan. 8 and includes a keynote from Krafcik, the seemingly boundless optimism that surrounded driverless cars only a few years ago has been tempered by a slew of persistent technological challenges and big questions about near-term business models, especially as a recession looms. "Most of the automakers are chasing a business model that has yet to be proven—that elusive robo-taxi," says Craig Giffi, head of consulting firm Deloitte's U.S. automotive and industrial products practice.

At CES, driverless and auto technology will cover 300,000 square feet of floor space, more than the total size of many stand-alone car shows, and the auto industry is continuing to pour billions into self-driving cars. Ford Motor Co. CEO Jim Hackett said in November that the market for autonomous vehicles and other mobility services could reach \$10 trillion—half the size of U.S. gross



ILLUSTRATION BY KURT WOERPEL



domestic product. Annual sales of self-drivers will hit 33 million by 2040 and account for more than a quarter of global vehicle deliveries, according to researcher IHS Markit.

That's why automakers and tech companies are rushing to get robots on the road. General Motors Co.'s Cruise Automation plans to debut its automated ride-hailing business in a U.S. city in 2019, and Ford promises to deploy tens of thousands of self-drivers on the streets of multiple U.S. cities in 2021 as part of a profitable business moving people and packages. Even Uber resumed testing its autonomous Volvos in December, only nine months after one struck and killed a pedestrian in Tempe, Ariz.

But a study from Deloitte suggests things will move more slowly than expected. Half of the 25,000 consumers Deloitte surveyed globally said they didn't believe autonomous vehicles would be safe, up slightly from 47 percent a year ago. Just 39 percent of them trust automakers to bring the technology to market. Most surprising: Only 12 percent of U.S. consumers reported using services such as Uber and Lyft once a week, half the rate of a year ago. Taken together, the findings undermine the near-term business case for the robo-taxi, which relies on an ever-growing pool of consumers ditching their cars.

As long as human safety drivers are required, profits are out the window. "The economics of that don't work out at all," says Johnson-Roberson, the University of Michigan technologist. He says the only way to remove safety drivers is to isolate autonomous cars in their own lanes, walled off from unpredictable humans. Among other things, driverless cars still struggle to merge into traffic.

Auto bosses are beginning to acknowledge that fully self-driving cars "will take much longer than people imagine," says Sachin Lawande, CEO of auto parts maker Visteon Corp., which is focusing on semi-autonomous assistance for human drivers. "The new realization is that it will be 2025 before we see that on the road. Maybe longer." Like Lawande, Jake Fisher, director of auto testing for *Consumer Reports* magazine, sees more potential for autonomous technology working in concert with humans. Fisher says the gear could be especially useful for long-haul truckers and highway drivers.

As with the dot-com bust or other early hiccups for emerging technologies, the outstanding challenges aren't going to keep driverless cars off the roads forever. The profit potential is too great and the existential threat too serious for carmakers and tech companies to give up. Yet the present "trough of disillusionment" should prompt the industry to take a more realistic look at just how far off the

driverless future may be, says Mike Ramsey, an automotive consultant with researcher Gartner Inc. "People have had this really unrealistic view of how fast this really groundbreaking technology can be implemented," he says. "It's going to be painfully slow." —*Keith Naughton, with David Welch*

**THE BOTTOM LINE** Although industry funding isn't going away, challenges in self-driving technology development have delayed driverless businesses and kept rollouts modest.

# Addicting You for Your Own Good

● Language-learning app Duolingo learns from gaming companies to keep users coming back

ReCaptcha inventor Luis von Ahn introduced Duolingo in 2012, hoping to help users master a new language. In minutes a day, the app promised, you could learn English, Spanish, French, or German—no books required, no instructors. And all for free.

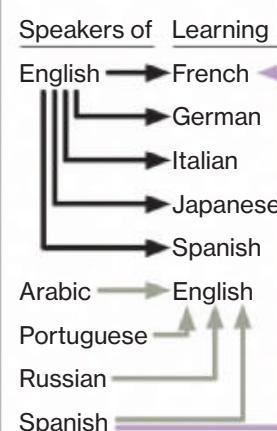
The pitch sounded convincing enough. But in the first year after its debut, Duolingo had a hard time persuading hopeful linguists to keep up with the lessons. For every eight users who downloaded and tried Duolingo, seven never returned.

So von Ahn set out with his developers to make the app as addictive as *Candy Crush* and other popular games—in a good way. The addiction Duolingo cultivates, he says, isn't harmful in the way the World Health Organization says compulsive video-game playing is; the organization classifies excessive video-gaming alongside opioid or amphetamine abuse. Duolingo really is about self-improvement, von Ahn says—time otherwise spent playing games, on social media, or doing nothing, is applied to developing a skill. What's so bad about that?

Good or bad, Duolingo's addiction rate is way up. Next-day retention is 55 percent, up from 13 percent in 2012. "That's about as good as a middle-of-the-road game," von Ahn says. And with about 200 million users, Duolingo is the largest language-teaching company in the world, by user base.

The growth has attracted investors. Since 2012, von Ahn has raised \$108.3 million from Union Square Ventures, Kleiner Perkins Caufield ►

● Duolingo's most popular courses





◀ & Byers, and Google Capital, among others. Duolingo's valuation is now \$700 million.

Changes and upgrades—and more than two dozen additional languages—have been introduced along the way, including a rollout in April of a home screen design that highlights Duolingo's new “Levels,” lessons for both casual and committed learners. Users achieve successively higher rankings by repeating already-completed language exercises. The company has tapped into the latest research from behavioral scientists such as Angela Duckworth, an expert on self-control, and cadged ideas from game makers, who, von Ahn says, “have nailed down behavioral addiction really well.” One copied technique, “appointment mechanics,” encourages users to keep returning by rewarding streaks of uninterrupted daily practice with jewels that can be traded for in-game rewards.

The easiest way to mimic the behavioral addiction of games was to hire developers from companies such as Zynga, the maker of *Candy Crush* and *FarmVille*. “They were extremely data-driven,” says Jorge Mazal, Duolingo's director for product management, of his experience at Zynga, where he was a lead developer of *FarmVille2*. “The problem with that is that there are some things you can't measure, but they're still important—like fun. So they wound up making things not fun. If you focus too much on optimization, creativity goes out the door.”

At Duolingo, Mazal says, he and his team rely as much on human intuition as on hard data. Employees are encouraged to play games on the job and to consider and test features of those games that could apply to Duolingo. If tests on small user groups prove successful, the feature is rolled out across all platforms—a desktop version and mobile versions for Android, Apple, and Windows. The recently introduced Levels, for instance, was inspired by a similar feature in a game called *Clash Royale* in which players' armies battle to destroy one another's towers. With each iteration, Duolingo's machine-learning algorithms sift through user data to help maximize language-learning efficacy.

In 2018 the company pushed to boost revenue from its three main sources: ads that run in the app; \$9.99 per month premium subscriptions that let users avoid seeing ads; and English proficiency tests for non-native speakers, which cost \$49 and are administered via a separate desktop program. The company grossed \$30 million to \$40 million in 2018, a spokeswoman says—a figure that still lags behind competitor Rosetta Stone, which reported \$42.8 million in revenue for the third quarter of 2018. Von Ahn expects to achieve profitability in 2019 and to take Duolingo public when revenue

hits \$100 million, possibly in two or three years.

Only about a quarter of Duolingo users finish the courses they start. Critics say the app's cheerfully childlike design and bite-size lessons aren't the stuff of serious learning. “I've used it and worked with app users, and it didn't really make them fluent,” says Kerstin Cable, a Canterbury, England-based language tutor and self-proclaimed “Duo skeptic.”

Fluency, Mazal says, isn't really the goal. “When you're done using the product,” he says, “you feel like you're a little bit better as a person. That's really what people are going for. That's what we try to give them.” —Jeff Wise

THE BOTTOM LINE Duolingo's von Ahn says getting hooked on a language app is an exercise in self-improvement and not as harmful a habit as obsessively playing the games his app is modeled on.

**“There are some things you can't measure, but they're still important—like fun”**

# Your Bitcoins Are in the Painting

● An art-world niche means money for puzzle-solvers and startup funding for one creator

Marguerite deCourcelle lives at the peculiar intersection of Bitcoin and art. Under the pseudonym @coin\_artist, she's credited with inventing the crypto-art puzzle, a genre of images hiding complicated ciphers that reward the first solver with a walletful of virtual currency. The most famous of these is an @coin\_artist oil pastel from 2015 called *Torched H34R7S*, the final work in a series known as *The Legend of Satoshi Nakamoto*. Depicting a turtledove, chess pieces, and a phoenix surrounded by flames, the painting incorporates symbolic references to Bitcoin's creator, as well as to Shakespeare and deCourcelle's personal life. An anonymous person solved the riddle in 2018, unlocking 5 Bitcoins, at the time worth about \$50,000.

DeCourcelle started the Bitcoin-art-puzzle phenomenon in 2014 with *Dark Wallet Puzzle*, a



● deCourcelle



painting of two leading crypto anarchists that hides a key. It led to a 3.4-Bitcoin reward. “I created it after realizing that without a third party litigating how money moves, that money could be ‘pulled out’ of anything,” she says.

Until recently, most hidden-crypto-key artworks had been known only to nerdy collectors, their images circulated on websites such as Reddit and BitcoinTalk. Now they’re starting to enter the mainstream through galleries, museums, international exhibitions, and even video games. Many of the puzzles are also getting a bit easier to solve, giving more people a chance to crack the code and claim the coins. Some collectors are buying the art even after the puzzle has been solved and the digital currency extracted.

This spring artist Andy Bauch showcased “New Money,” a collection of mosaics, at the Castelli Art Space in Los Angeles. The patterns in the pieces, which were made of thousands of Lego blocks and included a 4-by-9-foot horizontal triptych, contained clues to troves of Bitcoin and other cryptocurrencies. “How seemingly arbitrary art prices are, and seeing crypto prices fluctuating wildly, I was curious,” Bauch says. “Will the cryptocurrency I put in this art appreciate? Will the art itself appreciate regardless of the cryptocurrency?” Three of his works have sold—one of them for \$14,000—though the virtual coins hidden within one had already been taken before the show began. Per the unspoken rules of the crypto-art crowd, Bauch had posted photos of the works online, where anyone could view them and try to decipher their riddles.

The Whitney Museum of American Art in New York plans to show a 16-millimeter film by Jennifer and Kevin McCoy that offers clues to a Bitcoin address. The first solver will be named as one of the official donors of the piece, a distinction that can be resold or traded. At Bitcoin Art (r)evolution in Paris this fall, some 1,000 visitors in the course of a week viewed 40 works from @coin\_artist and others, organizer Pascal Boyart says. He plans to embed crypto-art puzzles in his murals in the city’s streets.

The broadest adoption of the puzzles, and maybe the best chance to make money, could come with video games. That’s the path deCourcelle is taking: In January 2018 she launched Blockade Games Inc. In March the company released a site filled with puzzle games called *Pineapple Arcade*—one complicated Rubik’s Cube-type puzzle looks like the fruit—offering to pay out prizes totaling more than 17.5 Bitcoins (more than \$68,000) and 15 Ether (about \$2,000). DeCourcelle says even



children should be able to solve puzzles for crypto prizes. Starting in early January, they’ll be able to trade parts of animated bears for Ether in the game *Plasma Bears*. The venture has gained some early momentum—Blockade raised \$833,000 in a funding round late in 2018, valuing the company at \$13 million.

DeCourcelle, who has an art degree from Eastern Oregon University, made the final piece of *The Legend of Satoshi Nakamoto* series when she found herself suddenly single and parenting two small children, living in a rented room at a friend’s house with no steady means of support. She spent four months working at night, during her boys’ naptimes, and between freelance projects to finish the painting, for which she’d already pledged 3.5 of her own Bitcoins in prize money. She survived in the meantime by selling the original *Dark Wallet Puzzle* painting for 10 Bitcoins, or about \$3,000 at the time.

“I just wanted a piece of that history,” says buyer Brooke Royse-Mallers, a Bitcoin investor and avid crypto-puzzle solver. “The history of Bitcoin’s evolution and my evolution with it, I guess. That painting helped me learn more about the technology without being a coder.”

Most crypto art isn’t fetching much money by art-world standards, and the puzzles’ value as investments remains unproven. Still, deCourcelle says she’s been offered as much as \$1 million over the years for *Torched H34R7S*. It’s still in her hands—sentimental value—even though, she says, “I should have probably sold it.” —Olga Kharif

▲ *Torched H34R7S* is deCourcelle’s most famous crypto-art puzzle

● Offers for *Torched H34R7S* have gone as high as

**\$1m**

THE BOTTOM LINE Crypto puzzles have become a curiosity in art-world hot spots and a calling card for their inventor, with some even selling after the digital currency hidden inside is long gone.





# Selling Veterans on Cash-Out Loans

The VA is worried that refinancings could be “subprime lending under a new name”

Eric Kandell is making his pitch to veterans. Wearing a red T-shirt, with the words “Low VA Rates” emblazoned across his chest, he looks fit and muscular, as if he had stepped off an Army base himself. In this YouTube video and others, he tells current and former service members how they can take tens of thousands of dollars in cash out of their homes. They can pay off credit cards, remodel a

kitchen, install a swimming pool, or travel to Las Vegas. “Do whatever you want,” he tells them. “Imagine your home is like an ATM.”

Kandell is targeting borrowers from the U.S. Department of Veterans Affairs mortgage program. He’s the 43-year-old president of a company whose very name is a come-on: Low VA Rates LLC. It’s among the lesser-known financial



outfits dominating the business of selling cash-out VA mortgage refinancing, which totaled \$41 billion worth of new loans over the past year.

This boom is alarming federal regulators. Lenders, who can charge thousands of dollars in fees, are encouraging veterans to extract as much as 100 percent of their home equity. Many of the borrowers have poor credit and low incomes, and they could soon find themselves deep underwater. Multiple refinancings helped spark the 2008 financial collapse. In a recent Federal Register notice, the VA itself says financial companies are reviving “subprime lending under a new name.”

Lenders say they’re providing a valuable service to cash-strapped veterans. Many borrowers use the money to pay off high-rate credit cards, medical bills, or home repairs. “These guys were asked to put their life on the line, and we trusted them to make the right decision in defending our freedom,” Kandell says. “Yet we want to dictate what they do with their finances. I don’t find that to be American.”

Founded in 1944, the VA loan program began as a way to offer a hand up to returning World War II service members. In the event of a default, the government guarantees 25 percent of the loan; the lender is responsible for the rest. Government-owned Ginnie Mae backs bonds based on these loans, which are packaged and sold to investors, such as pension and mutual funds.

The loans have helped generations of veterans buy homes. But refinancings can be a costly way to free up money. In a cash-out transaction, borrowers get a new loan for more than they owe on their current mortgage. A VA borrower must pay as much as 3.3 percent of the loan amount to the federal government as a fee that offsets defaults. (Historically, default rates have been relatively low.) Closing costs and lender fees typically add 1 to 3 percentage points, according to David Battany, executive vice president for capital markets at San Diego-based Guild Mortgage. Lenders say many borrowers take the option of paying a higher mortgage rate rather than upfront fees.

A veteran with a \$250,000 home loan who pulls out \$20,000 in cash can easily end up paying more than \$14,000 in fees, Battany says. “Customers rightfully complain when they have a \$2 ATM charge,” he says. “This is, in effect, a \$70 charge on a \$100 withdrawal.” Even if customers pay off a high-rate credit card, they’ve extended the term of their debt for decades. And, unlike with credit card debt, if they fail to make mortgage payments, they can lose their homes. The VA estimates that more than half of borrowers who take cash out of their

home are vulnerable to predatory lending behavior, which includes poor disclosure or making loans with little benefit to the borrower.

Larry Speights, a veteran who spent 24 years in the Army, says he called a lender named NewDay USA after watching one of its TV commercials, pulling out \$20,000 from his VA mortgage in 2017 to pay off credit cards. The refinancing required more than \$14,000 in closing costs and fees, he says, and NewDay called him six months later in 2018 to refinance again, offering a lower rate that he says should have been given to him in the first place. He took the loan. “I know people got to make money, but I think they should be more cautious when messing with veterans,” says Speights, who lives in Waleska, Ga. “We’ve already been through a lot.”

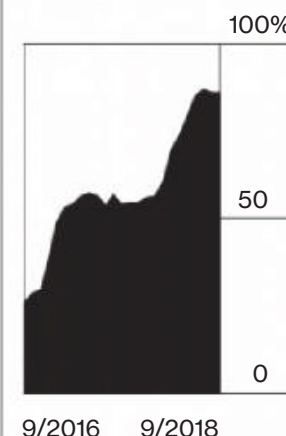
Citing customer privacy, NewDay declined to comment on individual borrowers. Robert Posner, NewDay’s chief executive officer, says borrowers often lower their overall debt payment by hundreds of dollars a month and may improve their credit scores by putting the proceeds of a refinancing toward credit cards and other high-interest debt. “I’m not saying, at the end of the day, that a VA cash-out loan is perfect,” Posner says. “But it’s a heck of a lot better than paying 21 to 23 percent on a credit card. This is cheap money.”

For more than a year, Ginnie Mae has been fighting what it calls “churning”—the practice of repeatedly pushing veterans into unnecessary refinancing. Ginnie Mae temporarily suspended VA loans from NewDay and others from being included in some of the pools of mortgages for bonds it guarantees. Posner says NewDay will refinance only if it provides a cost savings to the veteran and will do so only once. “NewDay USA does not churn and has never churned,” he says.

Ginnie Mae now requires borrowers to wait at least six months between deals, and Congress started mandating that refinances provide an “actual benefit” to military families by, for instance, lowering rates. But after lobbying from lenders, Congress left a loophole: Cash-out refinances required no such benefit, other than the cash itself. Cash-outs accounted for 86 percent of VA refinancing in September, up from only about 30 percent two years earlier, according to an analysis of federal data from the American Enterprise Institute, a conservative think tank. As interest rates rise, “lenders and brokers are increasingly desperate for business because the refinancing wave has run its course,” says Michael Bright, Ginnie Mae’s chief operating officer. “What’s left? Cash-out refinancings, where the guardrails are not tight.”

◀ Kandell’s company specializes in VA loans

● Share of Veterans Affairs mortgage refinancings that are cash-outs





◀ Even after the crackdown, the proportion of borrowers who took cash out of their mortgage and then refinanced again in six to eight months rose over the past year, to 7 percent from 6 percent, according to data compiled by Ginnie Mae. It's considering further restrictions on refinancing and kicking more lenders out of some pools of mortgages it backs. Along with the effect on veterans, government regulators fear that frequent refinancing could turn off bond investors looking for stable income payments, ultimately raising interest rates for all consumers. Goldman Sachs Group Inc., Pacific Investment Management Co., and other big bond investors recently complained that high VA loan prepayments might lead them to scale back purchases.

In December, the VA proposed subjecting cash-outs to the "actual benefit" standard. Kandell, the Low VA Rates president, says the rules wouldn't slow down business much, since nearly all deals could meet that condition.

Meanwhile, companies such as NewDay keep pitching cash-out refis. The lender has a high profile. Former Baltimore Orioles star shortstop Cal Ripken Jr. once worked as a pitchman. In one online video featuring a rippling American flag, Ripken says he's proud to represent the Fulton, Md.-based lender, a hometown institution. "As a veteran, you've earned the right to apply for a loan that lets you borrow up to 100 percent of your home's value," he says. Through a spokesman, Ripken says his relationship with NewDay ended.

Tom Lynch, a retired U.S. Navy rear admiral, gushes in his own video spot for NewDay: "You gave 100 percent to your country. Let NewDay give 100 percent to you!" In another, veterans cheer: "Thank you, Admiral!"

Another major VA refinancer, Illinois-based Federal Savings Bank, sent a flyer to Frank Preciado, an Iraq War veteran in Phoenix. "Expiration notice," it reads. "Our review has indicated that the waiting period has been marked as expired...you have not accessed your equity reserves of \$4,068.34."

Preciado says the notice seemed designed to appear as if it were from the federal government. The bank uses an eagle as its symbol. The company says the notice "clearly identified that it came from Federal Savings Bank." Says Preciado, who works as a mortgage broker: "Federal Savings Bank knows better, and those practices need to stop."

—Prashant Gopal and Elizabeth Dexheimer

**THE BOTTOM LINE** Veterans can tap up to 100 percent of their home equity in a cash-out refi. But it's a costly way to gain access to the money.

# Wanted: Buyers for China's Bonds

● Overseas investors have piled in, but now trade concerns are weighing on demand

Spooked by a massive exodus of Chinese capital in 2015, the country's policymakers hit on a plan to alleviate pressures on their currency. They could attract foreign cash—and boost demand for the yuan—by opening the doors to fixed income investors. Big overseas funds are always looking for ways to diversify and would likely want some exposure to China's bond market, the third-largest in the world.

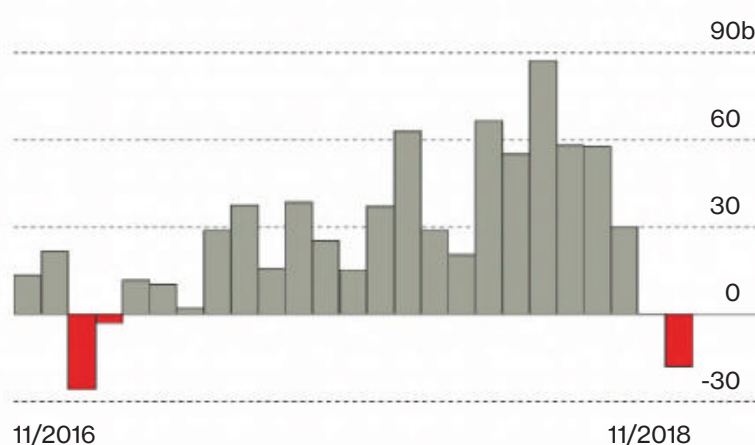
Money poured in, and inflows accelerated after China set up a channel called Bond Connect for foreigners to trade through Hong Kong in July 2017. But overseas funds started pulling money out in late 2018.

They've cooled on a market that in some ways is proving its worth as a diversification play. China's government bonds were among the world's best performers in 2018, returning 7.7 percent, while U.S. Treasuries earned 0.8 percent, ICE Bank of America Merrill Lynch data show. That gain is in yuan terms, however, and the

**"Capital inflows...will be very crucial for China's balance of payments"**

Foreign Investors' Holdings of Chinese Bonds

Monthly change, in yuan



DATA: CHINABOND, BLOOMBERG



yuan dropped 5.4 percent against the U.S. dollar.

Greater access to China’s markets hasn’t been enough to overcome geopolitical worries. The U.S.-China trade war has hurt the yuan and may also be giving foreigners pause before they add to their Chinese bond holdings, market watchers say. U.S.-based investors trimmed their participation in the country’s dollar-denominated sovereign bond sale in October. They accounted for only 2 percent of the five-year notes China issued, down from 20 percent in 2017. And China’s biggest bank, Industrial & Commercial Bank of China Ltd., canceled a dollar bond sale in the U.S. in November.

China’s policymakers will keep trying to attract bond investors, and Goldman Sachs Group Inc. anticipates a fresh campaign by China to promote its currency. Part of this involves overhauling regulations to win inclusion for Chinese bonds in global bond indexes. A key milestone may come in April: That’s when China debt will start to be included in the Bloomberg Barclays Global Aggregate Index, assuming certain criteria for accessibility and transparency are met. (Bloomberg LP, which administers the index, is also the publisher of *Bloomberg Businessweek*.) There’s room for demand to grow: The main non-Chinese buyers of the bonds so far have been sovereign wealth funds and central banks, with “very few” nonofficial asset managers getting in, according to Morgan Stanley.

“Capital inflows, especially those into the bond market, will be very crucial for China’s balance of payments, as the current account will deteriorate further amid the trade war and the restructuring of the economy,” says Becky Liu, head of China macro strategy at Standard Chartered Plc in Hong Kong. China’s trade surpluses are subsiding, and some economists even expect the country in coming years to shift to sustained current account deficits. If China’s bond market receives waves of overseas cash, that will help finance the deficits without running up a dangerous amount of debt in foreign currency.

Estimates on inflows in coming years vary widely, from about \$760 billion over the long term at Morgan Stanley to Goldman’s \$1 trillion by the end of 2022 to \$3 trillion through 2020 at UBS Asset Management. Jason Pang, a fixed income portfolio manager at JPMorgan Asset Management in Hong Kong, says his company has been boosting China holdings in recent months. “Whether we will add more,” he says, “depends on the trade war.” —*Tian Chen and Christopher Anstey*

**THE BOTTOM LINE** China has the third-largest bond market in the world, and getting non-Chinese funds to buy into it could add to demand for the yuan.

Career

Nili Gilbert



|                                                                                                                                                                                                                                                                                                                                                                                       |                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Nili Gilbert is the investment committee chair of the \$65 million David Rockefeller Fund, which supports nonprofit groups. She says she first became fascinated with finance as a child in Switzerland, where her mother taught at an American college. Gilbert liked collecting “pretty pieces of currencies” from around Europe in the days before the euro. — <i>Karen Toulon</i> | 1999 ● A.B., Harvard                                                        |
|                                                                                                                                                                                                                                                                                                                                                                                       | 2003 ● MBA, Columbia Business School                                        |
|                                                                                                                                                                                                                                                                                                                                                                                       | 2010-present ● Co-founder and portfolio manager, Matarin Capital Management |

In her words

|                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| On timing gifts:<br><br>Usually, if you put \$5 million into a foundation, it invests it and pays out 5 percent over time. But moved by the emergency of climate disruption, Clay Rockefeller and Rebecca Lambert [David’s grandchildren] funded the Richard Rockefeller Climate Change Initiatives, with the challenge that the fund spend down the entire principal and income on a gift of \$5 million within | five years. The urgency of the grantmaking matches the urgency of the problem.                                                                                                                                                                                                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                  | On inclusion:<br><br>The fund created a fellowship to hire formerly incarcerated Americans at the fund. This is to model practices we’d like to see nationwide. We also have an initiative where formerly incarcerated leaders are included as decision-makers in how grants are allocated. |



4

# ECONOMICS

26

Edited by  
Cristina Lindblad





## ● The pessimists are out for the EU and the euro again. But both keep defying the odds

The Hotel Grande Bretagne is an Athens institution. The opulent 19th century mansion on Syntagma Square has been the backdrop to key episodes in modern European history: The first International Olympic Committee convened here in 1896; Adolf Hitler and Field Marshal Erwin Rommel bunked here after the Nazis seized the hotel in 1941 at the start of the wartime occupation. More recently, it was witness to the most existential threat yet to Europe's experiment in unification.

The debt crisis that emerged in Greece in late 2009 and rippled through the euro region played out on the hotel's doorstep. Rioters protesting successive waves of austerity measures—and the international auditors who imposed them—smashed the hotel's marble steps, hurling fist-size lumps at police guarding the adjacent Greek Parliament. The shock of percussion grenades and the bitter taste of tear gas underscored divisions within the 28-member European Union and the failings of the euro, the signature project intended to bind the bloc more closely together.

Of course, the doomsayers were proved wrong. The single European currency survives to mark its 20th year in 2019, and predictions of the EU's demise have gone unfulfilled. But lately the pessimists have resurfaced. They point to the U.K.'s imminent departure from the EU, the populist Italian government's attacks on Brussels, and the spread of nationalism in the bloc's east as evidence that the European project is again in mortal danger. With Germany's Angela Merkel in the final years of a chancellorship that began in 2005 and France reeling from popular protests against President Emmanuel Macron, the EU's center looks more vulnerable than ever to forces tearing at its fabric.

Is the end nigh? History would suggest not. Recall just how dire the outlook was at the height of the sovereign debt crisis. Contagion took hold, and Ireland, Portugal, Spain, and Cyprus followed Greece in requesting international aid; the EU was split into richer, mostly northern donor nations and poorer bailout recipients on the periphery. Investors who regarded the euro as inherently flawed from its inception on Jan. 1, 1999, raised their bets against its survival. In mid-2012, Citigroup Inc. economists predicted a 90 percent chance that Greece would leave the common currency within six months.

European Central Bank President Mario Draghi

halted the speculation with his pledge to do “whatever it takes” to preserve the single currency. Yet then as today, detractors of the euro—and the bloc as a whole—misread or disregarded the political will to keep both intact. “If the euro fails, Europe fails” was Merkel's determined message. “The crisis created the political support to strengthen the euro and address weaknesses in the architecture underlying the single currency,” recalls Valdis Dombrovskis, the European Commission vice president in charge of the euro. He cites steps such as the €500 billion (\$568 billion) European Stability Mechanism bailout fund and moves to increase scrutiny of euro member budgets to detect and prevent problems before they escalate. Now, more countries are eager for the common currency. Bulgaria and Croatia are moving to adopt it, bringing the number of EU participant nations to 21. “Europe's monetary and economic union is stronger than ever,” Dombrovskis wrote in an email.

Draghi refrained from striking a triumphant tone in a speech in December to herald the single currency's 20th anniversary. The ECB chief listed the euro's successes while admitting not all have benefited equally from it, the result he said of domestic policies and a monetary union that may be stronger but remains incomplete. All the same, the currency's creation was an “exceptional,” even “antihistorical” response to a “century that had seen dictatorships, war, and misery,” he said.

Similar reminders of Europe's 20th century history are used by Merkel and Macron to make the case for political unity. But there are cogent economic reasons why even the EU's most grudging members are unwilling to push nationalist policies to the point of risking a split with the bloc. Poland, for example, where the nationalist government clashed with Brussels over judicial reform that EU officials regard as breaching the bloc's democratic norms, is the biggest net recipient of EU funds. Eastern Europe's largest economy receives €27 billion for transportation and environmental projects alone in the current budget period of 2014-20. That's equal to some 6 percent of annual gross domestic product. Little wonder, perhaps, that Poland backed down on the reforms at the 11th hour.

Meanwhile, the potential for an “Italexit” has diminished as the unlikely coalition of the anti-establishment Five Star Movement and the anti-immigration League has pulled back from its wayward fiscal policy. Concerns remain about Rome's economic trajectory: Italy is too big to rescue with the existing tools put in place in the wake of the debt crisis. But that kind of crisis probably ►

**“The European Union has been written off several times before but has always proved far more resilient than its critics have assumed”**



◀ won't lead to a departure from the EU and the euro. The League, which polls suggest could govern without Five Star if early elections were held, has its base in the richer north of Italy, including many among the business community who would be loath to risk it all on a break with the bloc. After all, 57 percent of voters say the euro is a good thing for Italy, up 12 percentage points from a year earlier, a November poll found.

The *gilets jaunes* protests against Macron were a serious expression of disaffection with the way France has been governed—and a drain on his political capital, including his advocacy for the EU. But the movement's diffuse nature, which enabled voters with disparate grievances to unite in protest via social media, means it's hobbled by a lack of leadership. Any attempt to politicize it further by contesting elections to the European Parliament in May would end up taking votes from the far right or far left in France and so strengthen the center. In any case, for Macron, humility may not be a bad domestic political strategy.

Domestic politics, too, have weakened Merkel's influence as the center of gravity for the EU. Still, her party opted to ignore the siren call to shift to the right to recapture voters lost to populism, instead choosing her preferred successor, Annegret Kramp-Karrenbauer, to hold to the centrist course she's charted. Polls suggest her Christian Democratic bloc has recovered from its lows. Free of the constraints of party leadership, Merkel can focus on European unity—her forte—in her remaining three years in office. She may even spring a surprise that helps bind the bloc more closely together.

The EU as a whole tends to emerge stronger from its many crises. When the U.K. voted to quit the bloc in 2016, many who campaigned for Brexit predicted the referendum result would prove a knockout blow for the EU, with the Netherlands, Denmark, Sweden, or Austria mooted as the next to bolt. Instead, Britain—where the political system is in paralysis over the divorce from the EU—serves as a deterrent to others, a warning of the dangers to a middling global power of pushing national interests to the exclusion of all else. The Brexit effect can be seen across the EU but not as the Brexiters envisaged: Blocwide, 62 percent of people see their country's EU membership as a positive, the highest figure recorded in 25 years, according to an October Eurobarometer survey for the European Parliament.

"The European Union has been written off several times before but has always proved far more resilient than its critics have assumed," says

Sony Kapoor, managing director of Re-Define, a London-based think tank. "It has lived and even thrived through the fall of the Berlin Wall; a huge, ambitious, and ultimately successful integration of former Soviet states; an existential euro crisis; the conflict in Ukraine; the rise of Donald Trump and Trumpism; and now the farce of Brexit. Yes, there are always urgent, critical, problematic, and important problems to confront, but the EU has proven its resilience beyond all doubt by now."

The blocwide elections in May could yet see a surge in support for anti-EU parties that may weaken the decision-making European Commission. But the real risks to the bloc in 2019 lie beyond its boundaries. President Vladimir Putin is emboldened by Russian success in Syria and President Trump's decision to pull out U.S. forces, while Turkey's President Recep Tayyip Erdogan is preparing to take up the fight against Islamic State. That hands Putin and Erdogan control over a potential fresh wave of refugees directed toward Europe—the bloc's most divisive issue in years—if the fragile truce over the Syrian province of Idlib is undermined.

Europe is caught in the crossfire of Trump's trade war with China, and the threat of U.S. tariffs on European cars hangs over the bloc. Tentative efforts to give the euro more of a global role to diminish the dollar's hegemony are another point of contention with the Trump administration. Yet here, as with Brexit, the lesson seems clear: A common European response is the only realistic option.

And what of Greece? It's been a decade since the mountain of public debt run up by the country's governments was revealed. Mistakes were made in Greece's financial rescue, and debate continues over whether the years of imposed hardship were necessary. Yet Greece exited its bailout program in August, and it still uses the euro. "The euro has not lost its attractiveness," says Dombrovskis, citing an EU-wide poll that found more than 70 percent of Europeans consider the currency to be a good thing, more than before the crisis.

For Draghi, who steps down as ECB chief in 2019, today's challenges are "ever more global in nature and need to be tackled together, not alone," he said in his December speech. "This is even more true for Europeans, both at the level of their individual nations and for the continent as a whole." —Alan Crawford, with Alessandro Speciale, Elena Gergen-Constantine, and Ritika Gupta



● Kramp-Karrenbauer

THE BOTTOM LINE Russia's Putin and Turkey's Erdogan may prove to be bigger threats to European unity in 2019 than Italy's populists or Eastern Europe's nationalists.



# AMLO's Plan for Energy

● The new president wants to wean Mexico off gasoline imports within six years

In the tropical heat of southeastern Mexico, bulldozers prep a construction site for a massive crude refinery on the outskirts of Paraiso, an impoverished oil town that's never lived up to its name. The 160 billion peso (\$8.2 billion) Dos Bocas project is central to President Andrés Manuel López Obrador's goal of setting Mexico on a course to energy independence. "In three years we will be producing the gasoline that we consume in the country," López Obrador, known as AMLO, told reporters during a Dec. 9 visit to the site.

His plan is to end the nation's dependence on fuel imports by building refineries and refurbishing existing ones, so Mexican crude doesn't have to be sent to the U.S. for processing. AMLO also wants to boost oil production by 53 percent from November levels, to 2.62 million barrels a day, by the end of his six-year term.

These are huge challenges, especially because AMLO, who's been in office just over a month, wants Mexico to do it all on its own. The leftist leader has lambasted the free-market reforms of his predecessor, calling for at least a three-year hiatus on leasing oil blocks to private energy companies. He also wants to review more than 100 contracts that have already been awarded.

AMLO's stance lays all the burden on the shoulders of Petróleos Mexicanos. The state-run company, known as Pemex, contributes about 20 percent of the federal budget, yet it's been starved of investment for decades. The company doesn't pump even enough crude to feed its six refineries. Most of the gas sold at Pemex-branded service stations is imported from the U.S.

The federal budget AMLO's government presented to Congress on Dec. 15 allocates 464.4 billion pesos for Pemex in 2019. While that's 14 percent higher than what was earmarked for the company in 2018, it's less than analysts had anticipated. (Pemex is Latin America's biggest corporate borrower, so its finances are closely scrutinized.)

Nymia Almeida, the lead Pemex analyst at Moody's Investors Service Inc. in Mexico, says the petroleum company will face some difficult choices if it's to meet the new administration's goal of stabilizing oil production at 1.85 million barrels a day in 2019. Crude

output peaked in 2004 and has fallen by almost half since then, to 1.72 million barrels a day in November. Onetime gushers such as the giant Cantarell field in the Bay of Campeche are now several decades old and declining, while a handful of new fields, such as Ixachi, Manik, and Mulach in the Gulf of Mexico, won't have significant production for several years. Pemex "will either need to spend a lot more or reduce discovery and development expenses," says Almeida.

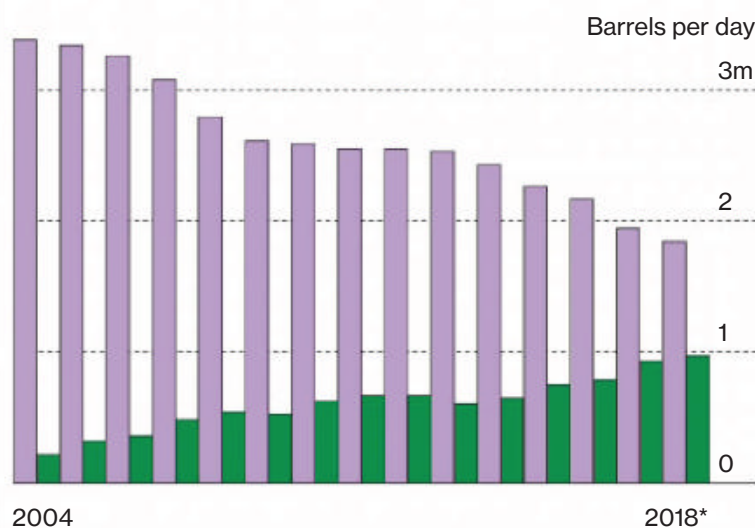
Aging fields aren't Pemex's only problem. Thieves siphon billions of dollars in fuel from its pipelines each year to sell on the black market. The company says illegal pipeline taps rose 45 percent, to 41 a day, in the first 10 months of 2018 from the same period the previous year. Meanwhile, Pemex's six refineries are so antiquated and badly maintained that they lose money when they're run at full tilt.

The notion that AMLO could make Mexico self-sufficient in fuel production in six years is far-fetched, says Robert Campbell, head of oil products research at Energy Aspects Ltd. in New York. The task would require "a colossal investment" in the refining sector, which has so far attracted only a smattering of deals, he says.

Plans for Dos Bocas, the refinery slated to go up in the president's home state of Tabasco, ►

## Mexico's Power Shift

Oil production Fuel imports



\*THROUGH NOVEMBER. DATA: ENERGY INFORMATION SYSTEM





◀ The site of the Dos Bocas refinery complex

envision a 17-plant complex capable of producing as much as 340,000 barrels of gasoline a day, which would make it the largest in the nation. Many have cast doubts on the project. “Building a refinery in three years is an ambitious goal in many countries, even China,” says Campbell. “Pemex’s track record with delivering refinery investment on time and on budget has not been that good.”

Several years ago, AMLO’s predecessor scrapped the \$12 billion Tula Bicentenario refinery in the Hidalgo state after almost a decade of work and billions of dollars in accrued expenses, opting instead to refurbish an existing facility at the site. It’s still not clear whether Pemex or the government will end up footing the bill for Dos Bocas. If Pemex has to pay, the project could divert resources from development

of a 1.3 billion-barrel oil reserve in Veracruz.

If Dos Bocas is built, Mexico will still need to import fuel. Its refineries were operating at 519,061 barrels a day in November, down from a peak of 1.43 million barrels 24 years ago, because Pemex has postponed billions of dollars in upgrades and maintenance. AMLO has said he wants those refineries operating at full capacity, but “there’s no scenario in which Mexico could achieve those levels under the way the system is set up now,” says John Padilla, managing director of energy consultant IPD Latin America LLC. “You are losing money every step you move in that direction.” —*Amy Stillman*

**THE BOTTOM LINE** AMLO is boosting Pemex’s budget but not enough for the company to hit the ambitious fuel production targets his administration has set out.

# Give Me Your MBAs, Your Entrepreneurs...

● Foreign students are helping to power Canada’s economic boom

Ayesha Chokhani, who grew up in Kolkata, has no love of the cold. Yet when she went to study for her master’s degree, the 29-year-old student chose the University of Toronto, where winter temperatures can fall well below freezing.

Chokhani had her pick of elite schools. She turned down Cornell and Duke in the U.S. Her reasons were clear: The anti-immigrant rhetoric from the Trump administration made her nervous. And

Canada had an additional draw: She can stay up to three years after she graduates and doesn’t need a job offer to apply for a work permit. “I wanted to be sure that wherever I go to study, I have the opportunity to stay and work for a bit,” she says.

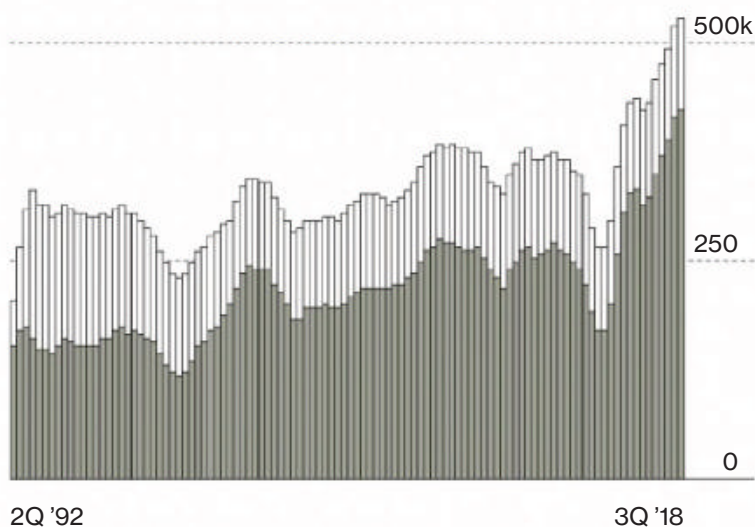
In August, there were about 570,000 international students in Canada, a 60 percent jump from three years ago. That surge is helping power the biggest increase in international immigration in more



## Canada's Population Growth

Trailing 12-month change

■ International migration □ Natural population



DATA: STATISTICS CANADA

than a century. The country took in 425,000 people in the 12 months through September, boosting population growth to a three-decade high of 1.4 percent, the fastest pace in the Group of Seven club of industrialized nations.

Canada's immigration system has long targeted the highly skilled. More than 65 percent of foreign-born adults had a post-secondary degree in 2017, the highest share tracked by members of the Organization for Economic Cooperation and Development. "We are the biggest talent poachers in the OECD," says Stéfane Marion, chief economist of the National Bank of Canada. As a result, he says, the country is better equipped to deal with globalization and technological change—"it's a massive, massive advantage."

Amazon.com Inc. has created 10,000 jobs in Canada in the past few years and has plans to add more than 6,000. "We're continuously impressed by the caliber of talent, and that includes folks who have come here from all over the world to build a new life," says Tamir Bar-Haim, Amazon's head of advertising in Canada, who immigrated from Israel.

Hassan Bhatti embodies Prime Minister Justin Trudeau's strategy of promoting immigration to bolster economic growth as the population ages. The 26-year-old Pakistan native co-founded a software startup called CryptoNumerics. His growing team of 10 works with other young companies in shared offices in the heart of Toronto's booming tech scene.

Bhatti has an undergraduate degree in physics and economics from the University of British Columbia. He'd planned to apply to Stanford or Harvard business schools, but his visa was rejected around the time the Trump administration

banned immigration from seven mostly Muslim countries. (International applications to U.S. business schools dropped about 11 percent in 2018, according to the Graduate Management Admission Council in Reston, Va.)

Bhatti decided to stay in Canada until his passport came through, and now he's rethinking a move to America. "Before it was like, the U.S. is the biggest economy. You want to go there. It was much more singular," he says. "My perspective changed."

For all its benefits, the immigration surge is becoming a contentious political issue. In the past couple years, the province of Quebec, for example, has seen a big jump in asylum claims by people arrested while illegally crossing the border from the U.S. It's now moving to cut its share of legal immigrants by 20 percent in 2019, to about 40,000. A new federal party, the People's Party of Canada, is also pushing to reduce immigration.

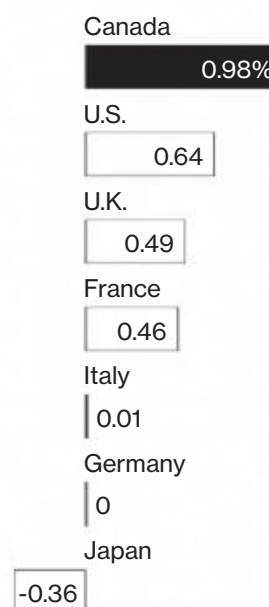
The University of British Columbia at Vancouver will raise its target for foreign students to 30 percent by 2022, from a cap of 15 percent in 2014, a plan that some have criticized. "As public institutions, they have a responsibility to cater to the local Canadian population," says Peter Wylie, a UBC associate professor of economics.

University leaders counter that, because international students pay higher tuition, they help institutions fulfill their public mission. Foreign engineering students, for example, pay \$32,700 a year, while Canadians pay \$4,500.

These students will be more of a benefit to Canada if they stay in the country and use their expertise to start companies. In 2017 only 9,410 former international students transitioned directly to permanent residency. That number increases to 44,000 when including those who have taken other routes such as getting a work permit first or going home before applying, data from Immigration, Refugees and Citizenship Canada show.

Chokhani isn't sure she'll remain in Canada. She's found it tough to afford Toronto's famously high rents—a byproduct of the country's booming economy—while also paying about \$78,000 for her MBA at the University of Toronto's Rotman School of Management. "I'm still open, of course, to liking the city more," she says. "But I don't know if it's the smartest decision to live here after." —*Natalie Wong, Theophilos Argitis, Natalie Obiko Pearson, and Erik Hertzberg, with Sandrine Rastello*

● IMF forecast of average annual population growth from 2018 to 2023



**THE BOTTOM LINE** Canada's population growth soared to a three-decade high in 2018, powered in part by an influx of foreign students.



5

POLITICS

# The *International* Rifle Association

- America's No. 1 gun group is a jet-setter







PHOTOGRAPH BY SARAH ANNE WARD FOR BLOOMBERG BUSINESSWEEK; PROP STYLIST: ANDREA GRECO; DATA: AMERICAN MEDICAL ASSOCIATION

When it comes to guns, Brazil and the U.S. have a few things in common. They rank first and second, respectively, in the number of citizens shot to death each year among the 195 countries that the American Medical Association tracks. The political dialogue in each country is dominated by a charismatic leader who says the answer to rampant violence is fewer gun laws and more guns. And both of those leaders—newly sworn-in President Jair Bolsonaro in Brazil and U.S. President Donald Trump—are big fans of America’s National Rifle Association.

Bolsonaro made gun rights one of the main planks in his campaign platform, liberally salting his speeches with NRA talking points: “Guns are our guarantee of freedom,” he said during an event in the southern city of Curitiba last March. “The only way to stop a bad guy with a gun is a good guy with a gun,” his son Carlos posted on Facebook.

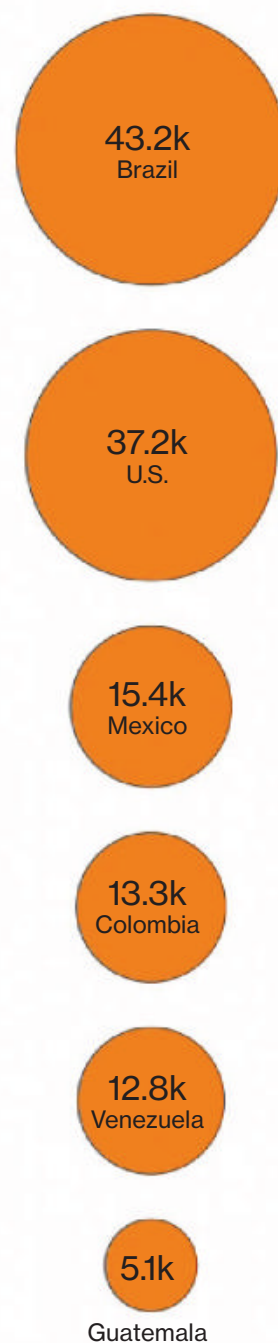
His victory shows that a core NRA principle—that armed citizens are safe citizens—is gaining political and popular traction far beyond America’s shores. Founded 148 years ago in New York by two Union Army vets to promote marksmanship, the group describes itself as the “oldest civil rights organization in America.” Its public events and messaging are often draped in the Stars and Stripes. Yet for all the patriotic symbolism, many of the forces shaping the NRA these days are distinctly non-American.

Gun control advocates have long said the NRA is more concerned with the needs of gunmakers than those of gun owners. (The NRA didn’t respond to multiple requests for comment.) Lately, foreign backers—and foreign markets—have become much more important to the NRA. Imports have accounted for almost 1 in 3 U.S. gun sales in recent years, up from 1 in 5 less than two decades ago. Many foreign and multinational gun companies have opened manufacturing facilities in the U.S., taking advantage of the lucrative civilian market and relatively lax regulation, making them natural allies with the NRA.

U.S. gunmakers, in turn, have set their sights abroad. Exports of handguns, rifles, and shotguns for civilian use rose 64 percent in the six years through 2016, to 369,000 units, data compiled by Small Arms Analytics show.

As the gun industry has gone global, the NRA has taken positions that are hard to square with its all-American persona. In 2013 it stood with Iran, North Korea, and Syria in objecting to an arms trade treaty in the United Nations. (Republicans opposed ratification of the treaty in the U.S.) The following year it slammed the U.S. Treasury Department for including Kalashnikov Concern, maker of the iconic AK-47, among companies sanctioned in response to the Russian Federation’s aggression in Ukraine. ►

● Countries with the most gun deaths in 2016





◀ The group acknowledged the hostilities but called the penalty a bid by U.S. gun control advocates for a backdoor assault weapons ban. A more global outlook also led to a major public-relations debacle, as some of the NRA's top luminaries drew close to a young Russian gun rights activist, Maria Butina, who now admits she was trying to influence U.S. conservatives on the Kremlin's behalf.

As gun culture has spread, advocates in countries as far-flung as Australia, Brazil, and Russia have looked to the NRA as their standard-bearer. It's hard to see how this serves the group's official mission as "a membership association that represents only individual citizens" of the U.S. But it's easy to understand how it might serve global gun merchants.

### ● International gunmakers are falling in line

Just about anyone in any country in the world can join the NRA. Donations are a bit trickier, but as long as the organization doesn't use them to influence U.S. elections, it's free to accept them from abroad.

The NRA doesn't break down its funding

sources by country. A Bloomberg review of publicly available documents indicates that foreign gunmakers with big U.S. sales are big NRA contributors. Brazil's Forjas Taurus, which generates 80 percent of its firearms revenue in the U.S., treats its U.S. gun buyers to an annual NRA membership, a \$35 value. Data on imports indicate that Americans bought about 760,000 Taurus guns in 2017, the most recent year for which sales figures are available, though how many of those buyers became NRA members isn't known.

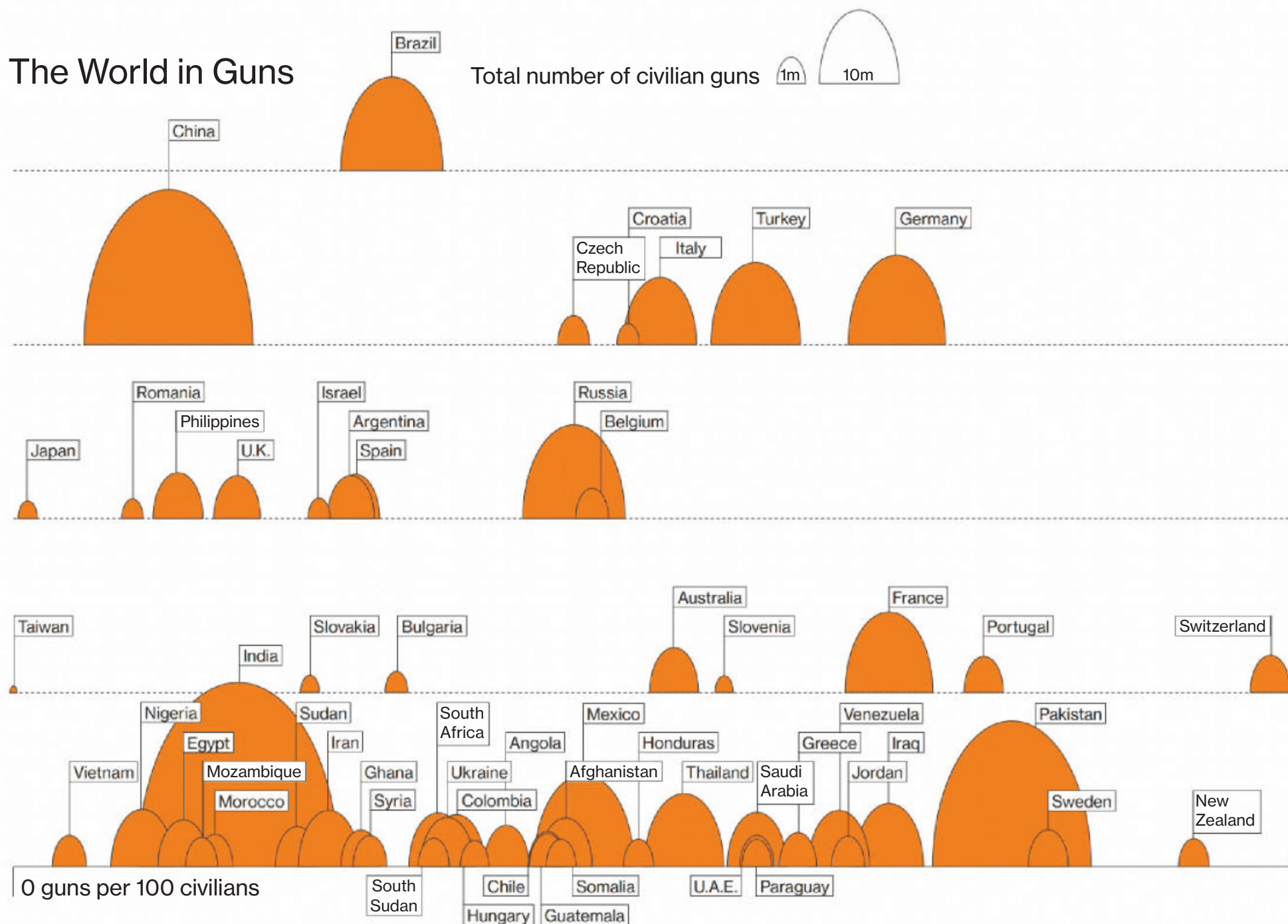
Belgian arms manufacturer FN Herstal and its U.S. sales subsidiary, FNH USA LLC, donated \$100,000 to \$200,000 to the NRA in 2013, according to the Violence Policy Center, a nonprofit dedicated to reducing gun deaths. Ugo Gussalli Beretta, an executive of the Italian gunmaker Beretta, pledged \$1 million to the NRA on behalf of the company in 2008, a gift that entitled him to membership in the Golden Ring of Freedom program, open to those who donate \$1 million or more; Josh Dorsey, corporate vice president of Austria's Glock, was inducted in 2017. A video Glock produced to celebrate the

## The World in Guns

Total number of civilian guns

1m

10m





occasion shows images of Glock craftsmen building pistols and police officers carrying them, before cutting to NRA Executive Vice President Wayne LaPierre addressing a cheering crowd, while a narrator asks, “Why would you not give as much as you can to support the NRA?”

Differences of opinion between foreign gunmakers and the NRA have led to headlines in the past, notably in the 1990s, when Glock supported child-safety trigger locks in direct opposition to the association’s stance. Since then, foreign gunmakers have bitten off a sizable chunk of the U.S. market—thanks in part to the NRA’s growing influence.

In March 2000 the Clinton administration announced it had reached an “historic agreement” with Smith & Wesson, one of the nation’s oldest and most popular gunmakers. Under the terms of the deal, the manufacturer would add safety devices to handguns, develop smart guns that wouldn’t fire without the owner’s fingerprint, test firearms through the U.S. Bureau of Alcohol, Tobacco, Firearms and Explosives, and sell guns only to authorized distributors. In return, the government

agreed to settle some lawsuits pending against the company, though the settlement never materialized.

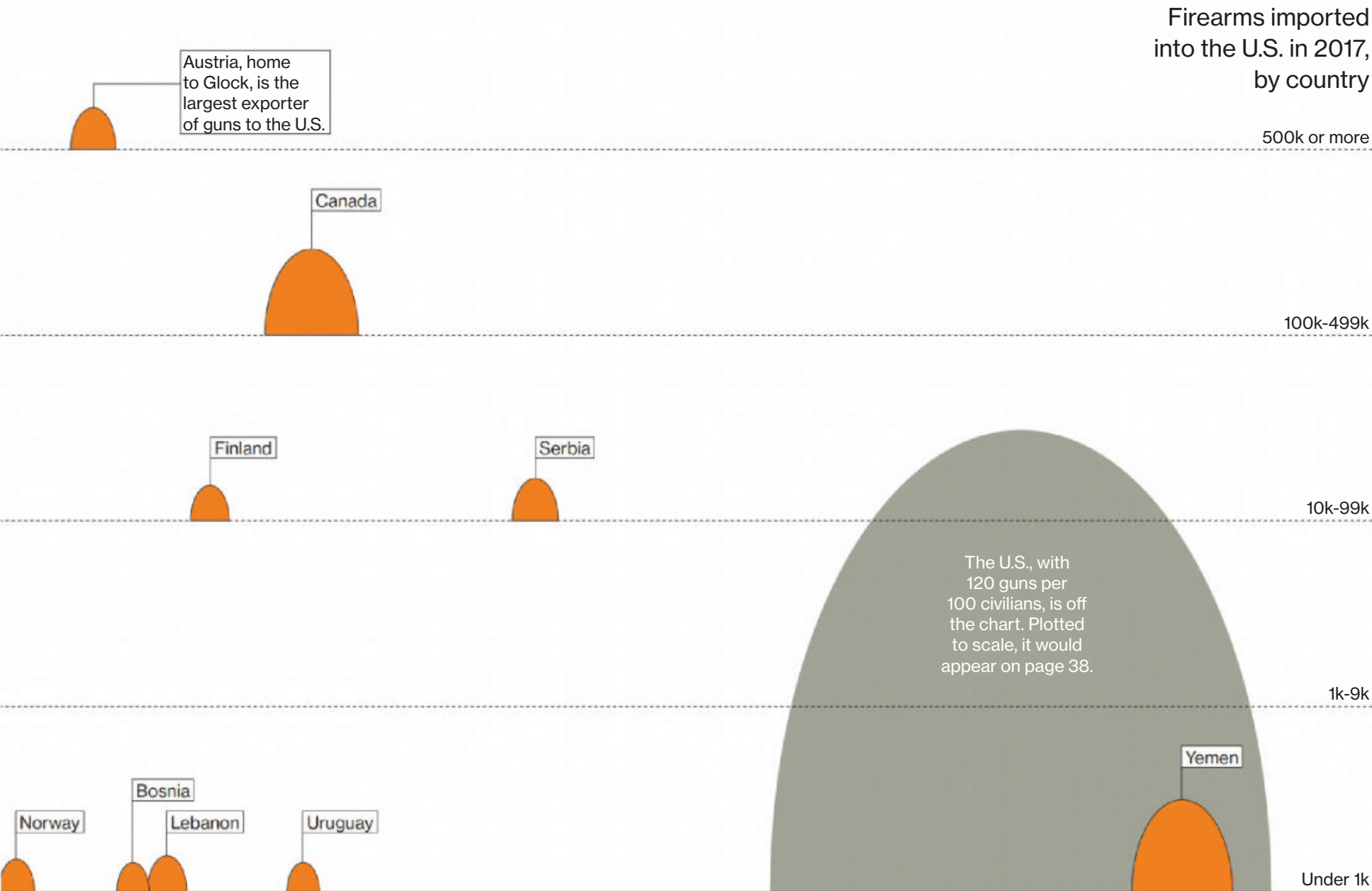
The NRA condemned Smith & Wesson’s decision, calling the company a “sellout.” Jeff Reh, general counsel to Beretta USA Corp., the U.S. arm of the Italian firearms maker, seized the moment. He told the *New York Times*: “I think that a fair number of Smith & Wesson customers will no longer want to purchase their products because of this agreement, and they will lose market share. A lot of gun owners will see this agreement as a betrayal of their Second Amendment rights and a capitulation to the Clinton administration gun control agenda.” He was right: Consumers revolted, and Smith & Wesson almost went out of business.

● Some executives from Beretta and Glock are members of the NRA’s Golden Ring of Freedom, open to those who donate at least

**\$1m**

● **Support at home can be volatile**

The NRA’s stock may be rising abroad, but the organization is facing money problems at home. The gun rights group raised \$312 million in 2017, the most recent year for which numbers are available—about a 15 percent drop from 2016, on ►





◀ the back of a 22 percent drop in member dues.

That dip in fundraising was reflected in how much the NRA and its PAC spent on 2018 campaigns. After laying out a record \$55.6 million in the 2016 election, including \$30 million to support Trump, it put only \$10 million into supporting or opposing candidates in November's midterms. NRA supporters give more when guns are under attack—meaning the revenue decline could be reversed if Democrats, emboldened by big wins in the midterms and empowered in the House of Representatives, try to do something about gun laws.

In the recent past, mass shootings and the backlash against guns that typically follows have been major boons to the NRA. The most significant was the December 2012 shooting at Sandy Hook Elementary School in Newtown, Conn., which left 26 people dead, including 20 students under age 8. (The gunman also killed his mother.) The next year, NRA member dues reached a 10-year high of \$175.6 million.

“Newtown all of a sudden became a huge issue,” says Richard Feldman, who’s lobbied on behalf of gun rights groups, including the NRA. In 2016, while Hillary Clinton was making gun control a central issue in her campaign, the organization raised a record \$367 million, besting its previous high of \$348 million in 2013.

With Republicans in charge of Congress and the White House, fundraising slowed on average. The exception was after the February 2018 school shooting in Parkland, Fla., which sparked nationwide demonstrations for gun safety laws. Some of the NRA’s longtime corporate partners severed their ties, and two weeks after the shooting, Trump said he’d “stand up” to the organization. (He reversed himself a week later.) In the meantime, the NRA’s political action committee prospered: It took in a record \$2.4 million the month after the massacre.

After the midterms, the financial tide shifted back in the group’s favor. In mid-December, *Politico* reported that House Democrats intend to come out of the gate strong pushing a gun control agenda. “I expect a surge in NRA membership,” Feldman says.

### ● The NRA’s message translates well abroad

The NRA has been such a financial and political success in the U.S. that gun rights organizations and politicians around the world look to it for inspiration. It’s a role the group embraces.

Three years ago, Australian Senator David Leyonhjelm appeared in an NRA video condemning

his country’s restrictive gun laws. “We love the NRA here in Australia amongst us gun owners,” he said. “In fact, we rely on you guys to also help us hold the line.” In May 2017, members of the Sporting Shooters’ Association of Australia’s legislative action unit visited the NRA’s headquarters in Fairfax, Va., to talk strategy and “shared challenges.”

It’s likely to be a tough fight. Australians have mostly embraced gun control, dating to a 1996 mass shooting that left 35 people dead and 23 wounded. In response, the country established a firearms registry, banned automatic and semiautomatic weapons, and instituted a mandatory buyback program for certain types of guns. Shooting fatalities have plunged since, and there’s little popular support for revisiting the gun control debate.

Brazil is a different story. When Bolsonaro and his son Eduardo, a legislator and campaign aide, traveled to the U.S. in 2017, shortly after a gunman opened fire on a country music festival in Las Vegas, Gun World of South Florida was one of their first stops, according to a video of the trip they shared. While there, they tried out an AK-47 and other assault weapons. Afterward, Eduardo, donning a “F--- ISIS” T-shirt, held up large-caliber shells for the camera and expressed dismay that they could “have a problem” if they tried to bring the ammunition into Brazil. His father campaigned on giving police greater latitude to use their weapons. In his Jan. 1 inauguration speech, Bolsonaro declared: “Good citizens deserve the means to defend themselves.”

▼ A Bolsonaro supporter attends a September campaign rally





## ● Russian influence goes both ways

On Dec. 13, almost five months after Butina was first arrested on charges of operating as an unregistered foreign agent, the Russian national pleaded guilty in U.S. federal court to having worked covertly on behalf of the Russian government to influence the 2016 U.S. election toward candidates who would favor President Vladimir Putin's agenda. Her mission, according to an FBI affidavit, was to meet politically influential Americans by infiltrating a "gun rights organization." That organization was the NRA.

Butina relocated to the U.S. on a student visa in 2016, but she was already well-known in the Russian gun community as the founder of the advocacy group Right to Bear Arms. "My work has been focused exclusively on the expansion of gun rights—very publicly," she told *Time* magazine a year later. "I am deeply grateful for the friendship of the American NRA."

In 2015 some prominent members of the NRA traveled to Moscow, a trip funded in part by Right to Bear Arms. Among them were Milwaukee Sheriff David Clarke Jr., a darling of the so-called alt-right conservative movement; NRA benefactors Arnold and Hilary Goldschlager; former NRA President and current board member David Keene; and Pete Brownell, then an NRA board member who would go on to become its president. At the time of the trip, he was building a Russian sales network for his family business, Brownells Inc., which bills itself as the world's largest supplier of shooting accessories.

Brownell, whose father has called him "the political animal in our family," first ran for a seat on the NRA board in 2010. In early 2015 he set about expanding his business in Europe and Russia by taking over a distribution network from another prominent NRA member, Larry Potterfield, founder of firearms retailer MidwayUSA Inc. in Columbia, Mo. A person familiar with Brownell's company says he didn't discuss his business interests with anyone under U.S. sanction.

In Russia later that year, Brownell and the other Americans were introduced to Kremlin and industry officials. These included Dmitry Rogozin, the deputy prime minister overseeing the country's defense industry, who was under U.S. and European Union sanctions at the time. The group also visited Russian gun manufacturer Orsis. Clarke later posted a photo of himself posing with what he said was the company's T-5000 M sniper rifle, which the U.S. military has identified as a particular threat and "one of the most capable bolt-action sniper rifles in the world."

With Butina's arrest this year came harsh scrutiny of the NRA's interactions with her and her

mentor, Alexander Torshin. A recently retired Russian central banker, Torshin is a "Life Member" of the NRA (as is Butina) who frequented its annual meetings and crossed paths with prominent Republicans, including Donald Trump Jr. Spanish authorities have accused Torshin of laundering money for the Russian mob, and in April he was added to the U.S. list of sanctioned Russian officials.

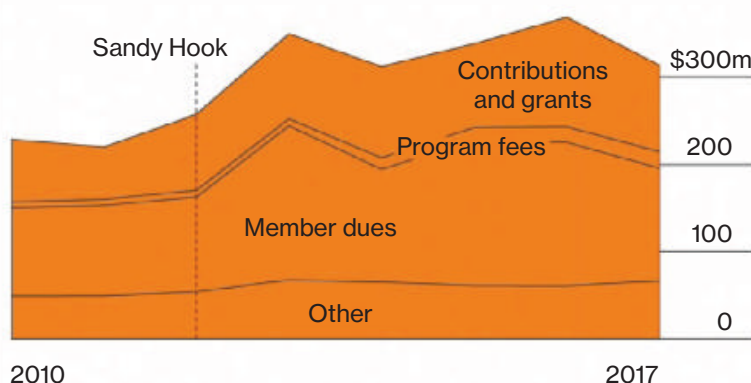
The FBI has also been investigating whether the NRA served as a conduit for Russian money entering U.S. politics, including Trump's presidential campaign, McClatchy has reported. Democratic Senators Ron Wyden (Ore.), Richard Blumenthal (Conn.), Elizabeth Warren (Mass.), and Sheldon Whitehouse (R.I.) wrote to Brownell and the other participants in the 2015 Moscow trip asking who organized and paid for it, whether NRA leaders signed off on it, and what interactions each had with Butina, Torshin, and Rogozin. The delegates



● Butina, in police custody in Alexandria, Va.

## NRA Fundraising

The Sandy Hook shooting was a turning point



haven't responded publicly, and the NRA has denied funneling Russian money to the Trump campaign, saying it received only \$2,500 from donors with Russian addresses before the 2016 election.

The NRA provided some documents in response to the Democrats' inquiry, according to Wyden's office, but refused to provide financial records Wyden had previously requested. After Butina pleaded guilty, Wyden wrote on Twitter, "Americans need to know: Who at the NRA knew Butina's agenda, and what did they get in return?" —Neil Weinberg, Polly Mosendz, and Bill Allison, with Paul M. Barrett, Olivia Carville, Alexander Sazonov, Rachel Gamarski, and Maria Luiza Rabello

Barrett is deputy director of the NYU Stern Center for Business and Human Rights. Michael R. Bloomberg, founder of Bloomberg News parent Bloomberg LP, is a donor to groups that support gun safety, including Everytown for Gun Safety.

**THE BOTTOM LINE** The NRA most Americans know as a down-home USA booster organization is becoming increasingly cosmopolitan, cultivating gun culture on a global scale.

**"I am deeply grateful for the friendship of the American NRA"**



For years, rural Guatemalans traveled thousands of miles for jobs in small-town Iowa. A series of immigration raids is severing connections seen and unseen

MOUNT PLEASANT, IOWA

# THE MILES THAT SEPARATE,

Walfred Urizar Lopez, 16, in Mount Pleasant







Elmer Urizar Lopez, Walfred's father, in the hills near his home

# THE TIES THAT BIND

CHOCOX, GUATEMALA

By Monte Reel

Photographs by Danny Wilcox Frazier (Iowa)  
and Daniele Volpe (Guatemala)



**ON THE** blacktop four-lane, a good mile or two from the edge of town, Dave Heaton spotted a “Now Hiring” sign. Those two words didn’t attract much attention anymore. You could find them on posters beside the meatpacking plant; on the fence at the Walmart distribution center; in front of the Pizza Ranch and the Pizza Hut and the Hardee’s; in the driveway next to the building supply warehouse; and in the yard at the plastic molding factory. But this particular sign snagged his attention, because he’d never seen one this far outside the city limits. It was as if the local businesses were now competing to see whose sign would be seen first by out-of-towners.

“That’s telling me things are getting desperate,” Heaton said.

About 8,500 people live in Mount Pleasant, Iowa, and for the past five years or so, the town has averaged 200 to 300 job openings on any given day. When Heaton, a 77-year-old Republican, was first elected to the state House of Representatives 25 years ago, the town’s big employers included a factory that built Blue Bird school buses, another that made Motorola electronics, and another that printed inserts for direct mail circulars. One by one those plants disappeared, mainly because of consolidation and outsourcing. Mount Pleasant became part of a statewide trend: The workforce in small towns and rural areas was shrinking as more middle-class families chased jobs to the cities.

Then something strange happened. A new class of businesses moved into those same small towns. First came the agricultural processors. By the 1990s, food companies determined they could save money by moving operations out of cities such as Des Moines and Cedar Rapids and closer to farms and livestock barns. In pursuit of even more efficiency, they then changed the nature of the jobs themselves. Meatpacking plants, for example, traditionally offered lots of skilled “master contract” positions, which might pay \$85,000 or so in today’s dollars. Industrywide, most of those had been “de-skilled” by the dawn of the 21st century. The new factories ran like assembly lines, with low-wage workers assigned to the same simple, repetitive tasks all day long.

**Downtown Mount Pleasant:** On any given day, the town has hundreds of job openings

This combination—a shrinking pool of workers and a growing demand for unskilled, rural labor—began to change the complexion of the workforce in Mount Pleasant. More companies turned to foreign-born workers to keep their factories running.

Heaton, like a lot of people in Mount Pleasant, figured the town was better suited than most to cope with these changes. In the 1970s and early ’80s, several families from Vietnam and Laos had arrived as part of a U.S. government resettlement program for refugees. At that time, Heaton ran the town’s only white-tablecloth restaurant, the Iris, and he hired some of those immigrants to work in the kitchen and dining room. They quickly proved some of the best employees he’d ever had—hardworking, dependable, polite. He’s friends with some of them to this day.

Since the ’90s, most of the newcomers have been Hispanics—“the second wave,” Heaton calls them—and they’re viewed a little differently than the Asians were. At a coffee shop in the town square, he explains: “When you walk out here in the central park, if it’s a warm day, they’re sitting around on benches out here. I mean, it’s like Europe. They don’t stay in their apartments. They come out in the street, and they sit around and talk, and it’s all in Spanish. I don’t hear any English.”

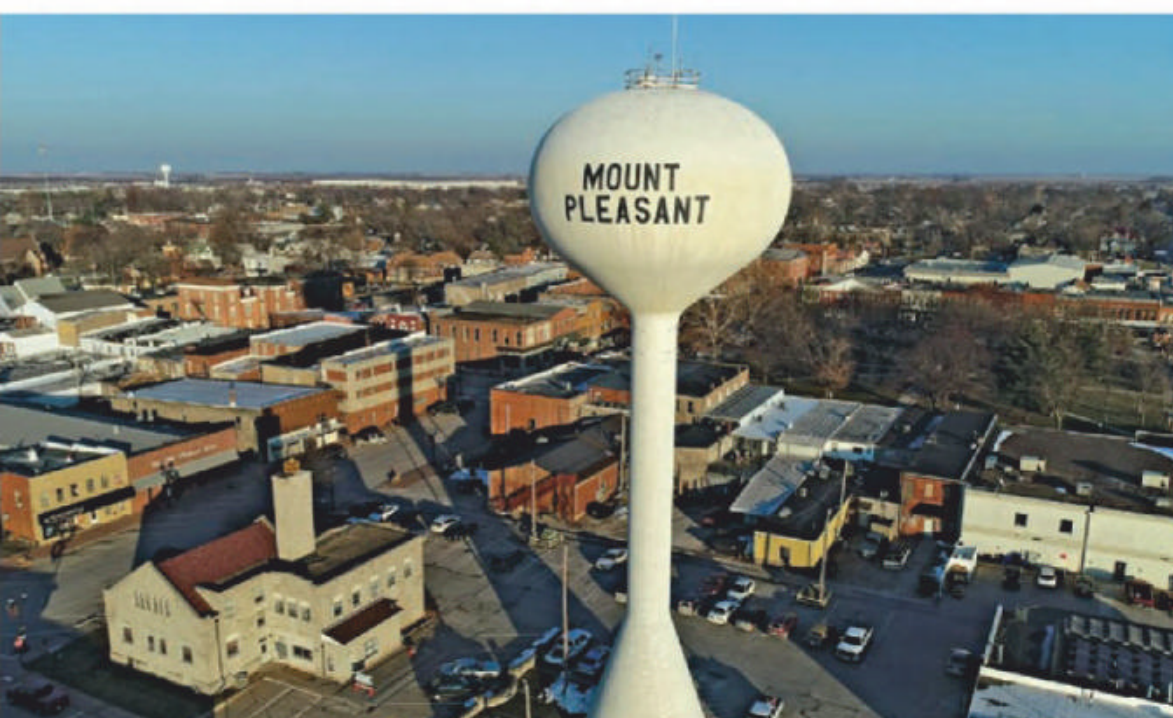
This bugs him. In the statehouse he’s considered a moderate on immigration issues, refusing to follow some colleagues who take a harder, more nativist line. He knows businesses in his district need those workers, and he insists he’s eager to embrace them as neighbors. But why don’t they embrace Mount Pleasant? “Don’t get me wrong,” says Heaton, who’ll retire from the legislature in 2019. “The only thing that upsets me is if they’re coming, they need to blend. I don’t need ‘barrios.’ I don’t need these certain sectors where everything is still the way it was where they came from. If you’re going to meld, then meld.”

By owning up to these mixed feelings, Heaton is a true local representative, voicing opinions that a lot of others share but won’t acknowledge on the record. For years it was easy to ignore the contradiction tugging at the town’s core: Mount Pleasant had grown increasingly dependent upon, and uncomfortable with, undocumented workers. This ambivalence has been harder to overlook since the morning of May 9.

Heaton was at a diner when he heard the helicopters swoop down on West Washington Street, about a mile from the square. He hopped in his car and drove out to MPC Enterprises Inc., a manufacturer of precast concrete products, which had moved into the old Blue Bird factory.

It was a raid by the U.S. Immigration and Customs Enforcement agency, better known as ICE. Heaton saw local police officers—guys he knew, guys who for years had chosen to look the other way when it came to immigrants—assisting federal agents. He saw dozens of men squatting on a curb outside the plant, many with their ankles shackled, all of them with their hands cuffed behind their backs.

These workers were something of a mystery to Heaton. Of the 32 arrested that day, all but 10





were from Guatemala, and many had come from Quiché, a mostly rural department, or district, in that country's central highlands. The sight of the men sitting together stirred all sorts of questions in Heaton's mind.

Who exactly were they? How did they end up here? And how in the world did a remote, forlorn pocket of rural Guatemala become so intricately connected to his own small town in the middle of America?

"Who the hell would pull up from where they live," Heaton wondered, "start out on a multithousand-mile journey, heading north to illegally enter the United States? Who is it that would leave their town, split their family, the whole bit? They must be living in terrible, terrible conditions. I can't imagine."

**CHOCO**X is too small to qualify officially as an *alde*a, or village. The Guatemalan government classifies it as a *caserío*, a tiny cluster of loosely related houses—about 15 in this case—independent from any other community. It's embedded into a rugged mountainside above the Río Negro, which shines like a ribbon of chrome at the bottom of an army-green gorge. Chocox is about an eight-hour drive from Guatemala City, and access is earned via a series of increasingly twisty roads. When you reach Ojo de Agua, the closest *caserío*, you might encounter the old dog that likes to lounge in the center of the narrow dirt road. Patience is rewarded here. The man in the house beside the path keeps a long wooden pole by the door—a dog-poking stick—that he uses to clear the way.

Follow the road for a few minutes more, and a rocky path splits off to ascend a mild slope. It leads to the Urizar house.

Elmer Urizar Lopez trudges up the path, under the mango trees and past a bent-armed cactus. The ground levels out on a high shelf of dirt, where a cow noses through a thin bed of straw. Nearby sits a mud-brick shack, its corrugated roof held up by tree trunks; this is where Urizar and his family used to live. About 30 yards away is their new house, about three times bigger than the shack.

The house isn't finished. In August, three months after the raid at the concrete plant, Urizar was deported. Construction on the house stalled because there was no more money to pay for it. But thanks to the dollars he'd wired from Mount Pleasant during his four and a half years there, several of the rooms are habitable, and it's an honest-to-God house—real red bricks, concrete pillars, smooth plaster walls on the inside,



The Urizar family's old house is on the left; the new one, which remains unfinished, is on the right

decorative tiles on some of the floors. There's a large cement patio out front, an ornamental wall at the property line, and a full water tank. With one glance at the place, everyone here forms an automatic assumption: It was built with money from America. In this part of Quiché, houses like this simply don't happen any other way.

Urizar, who's 42, grew up a few hundred yards from this house and earned his third-grade education at the *caserío*'s lone school. His mother and six of his siblings still live across the road. They don't have what you'd call jobs, because there are no employers out here. For the most part, they spend their days toiling in the rocky fields, growing what they eat.

About five years ago, a friend of Urizar's from Ojo de Agua told him about Mount Pleasant and how a nice little community of Quiché natives had banded together there. This wasn't particularly unique—Guatemalans from rural villages often migrate to small communities in America. Pedro Pablo Solares, a lawyer in Guatemala City, noted this phenomenon when he traveled through the U.S. from 2008 to 2014, interviewing more than 25,000 Guatemalan immigrants under an information-gathering program partly affiliated with the Guatemalan consulate. Solares says the rural-to-rural migration patterns have resulted in "mirror towns"—very small sister cities that help support one another in ways that can be difficult to notice.

Urizar's friend told him that several men from Quiché had found jobs at a concrete plant in Mount Pleasant. He could probably get a job there, too, if he wanted one.

He talked it over with his wife, Celia, and they decided to take a chance. The couple has three children—a boy and two girls—and when Urizar thought of their future in Chocox, he imagined the same tired story: a stunted education, a life ►

With one glance at this place, everyone here forms an automatic assumption: It was built with money from America



◀ of grinding poverty, the impossibility of change. America promised something different.

Urizar had no money to pay the travel costs to get all the way to the U.S. border, some 1,300 miles away. So he took out a loan of about \$10,000 and put up his land as collateral. He signed his property title over to a “coyote,” a human smuggler who agreed to try to sneak him into Texas. From there, Urizar planned to make his way to Mount Pleasant.

For several days and nights he rode in the back of a truck, bumping shoulders with other migrants as they rattled through Guatemala and Mexico. Eventually, late one night in January 2014, they arrived at the city of Reynoso, across the Rio Grande from McAllen, Texas. Just outside town, he and several others got into an inflatable raft and drifted across the river.

Urizar was scrambling through some prickly brush when a spotlight from a U.S. Border Patrol helicopter zoomed down on him. It was 2 a.m. He was detained and, within days, deported. He spent a restless month back home in Chocox before he tried to cross again.

That \$10,000 deal he’d made with the coyote, like most such transactions, allowed him three chances to make it across. If after three attempts he failed, the coyote would no longer help him. The land would be the coyote’s, and Urizar would be out of luck. On his second try, in February 2014, he made it.

In Mount Pleasant he shared a room on the second floor of a yellow house with a sagging roof just off the town square. He worked for 8, 10, sometimes 12 hours a day at the concrete plant. He’d cash his check and wire part of his earnings home, usually upwards of \$150 a week. Either Celia or his son, Walfred, then 11, would go to the Banrural branch in Uspantán, about an hour away by motorcycle, to collect the money. The family paid off the loan to the coyote and earned back their land title, and construction began on the new house.

Urizar had been in Mount Pleasant almost three years when Walfred started attending middle school in Uspantán. The boy told his mother the school was crawling with gangs. Older boys were pressuring him to run drugs, he said. Celia was horrified. She spoke to Urizar, and they agreed that the time had come. The boy was old enough to join his father in Mount Pleasant.

“We have no education, and for us, life is the ax, the shovel, the pick,” Urizar says. “But we want our children to have an education so they don’t have to suffer like we have. That’s why we wanted Walfred to go. To study.”

The boy jumped at the chance. At the time, it was much easier for unaccompanied minors to get into the U.S. than it was for their parents. If children made it to the border, they simply turned themselves in to the authorities, who typically would release them to sponsors, even if those sponsors in some cases were themselves undocumented. As a result, the coyotes charged much less for kids—just transportation costs, essentially. A month after his 14th birthday, Walfred made it to the border, and he was released by the Office of Refugee Resettlement to the care of his official sponsor, his father.

Together they moved into the ground-floor unit of the yellow house on the corner. Walfred enrolled in the local high

school and began studying English. At night, after Urizar returned home from work, they’d eat together, sharing tamales or *caldo de gallina*, Guatemalan chicken soup. On special occasions, they grabbed sandwiches from the Subway on the square.

After the ICE raid, Urizar spent three months in jail awaiting his day in immigration court. Because he’d been caught once before, his deportation was practically guaranteed. In August he was driven to the Cedar Rapids airport and flown back to a military airfield in Guatemala City. When he arrived in Chocox, he says, his emotions were “like a fish,” flopping this way and that. One minute he’d be overcome with joy because he was again able to hold his wife and daughters. Then he’d break down, thinking of Walfred alone in Iowa.

The boy was assigned his own immigration case, but he’d have to wait more than a year—until November 2019—before his day in court. Maybe a judge would allow him to stay, or maybe not. In the meantime, Walfred was taken in by an elderly woman in Mount Pleasant. He began to call her *abuela*, or grandmother.

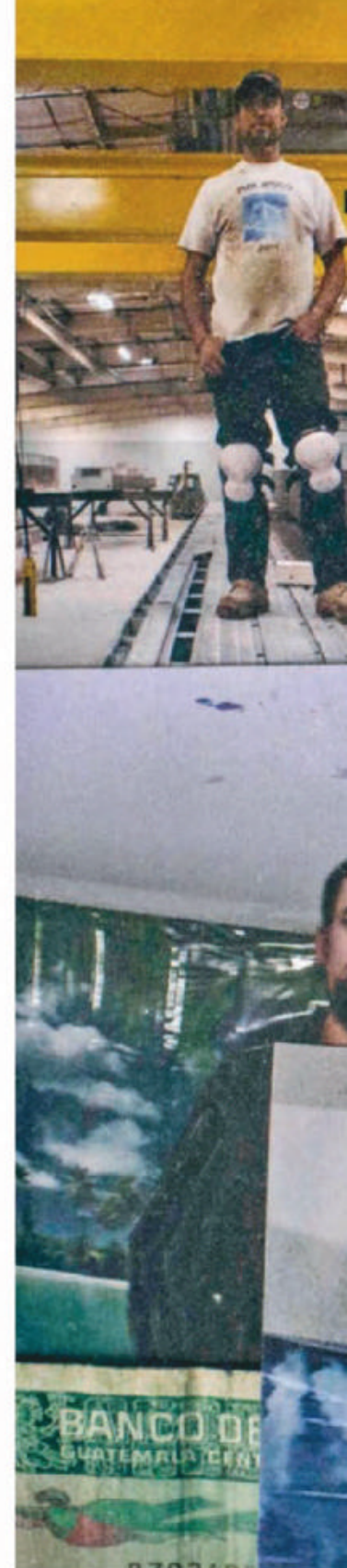
Urizar struggled to envision his son’s new arrangement. Who in the world was this woman? What was her house like? How was Walfred going to get along in Iowa now that his father was gone?

He couldn’t imagine.

**THE BOY** sits down at a small table in the kitchen and passes his homework instructions to the 82-year-old woman. It’s about nine o’clock. Still early for him, but past her normal bedtime. So be it. Almost everything normal about her life flew out the window the moment she opened up her life to his.

Kay Young speaks almost no Spanish, and Walfred is still struggling with English. She’s into quilting; he likes soccer. She’s a widow who’s lived her whole life in Mount Pleasant, and he’s a kid who has no idea what the most basic outline of his life might be a year from now.

When word of this unofficial adoption spread around town, Young sensed that the old-timers at the coffee shop in the Hy-Vee grocery store and the ladies in her bridge club might be whispering about her. Has the woman finally lost her mind? Does she have no concern at all for her personal safety? Doesn’t she know the boy’s father broke the law? But Young also suspected something else: Hidden affinities linked herself and the boy. A connection others couldn’t see.







A photo collage in the Urizar home, Elmer's reminder of his time in Mount Pleasant. In the center is his younger daughter, whom he didn't see for more than four years

Now, sitting across from Walfred at the marble-topped table, she scans the homework assignment: Write a short fantasy story or fairy tale, one with multiple characters, each driven by desires and confronted by obstacles. Not bad, she thinks. It will be much better than last week's exercises in geometry, a subject she never really grasped even when it was fresh to her, back in the Truman years. But she'd spent years running the town's community theater, and a fairy tale she could handle.

The instructions say Walfred should construct the narrative backwards. Near the top of the page he's supposed to write the story's resolution. Below that are several lines where he can list the setting, the characters' names, and the plot points. He'll need to incorporate a few specific vocabulary words into the story; one is "jealousy."

Young walks him through the assignment, and he decides the fairy tale will unfold at Mount Pleasant Community High School and the main characters will be animals. One will be a

worm. The worm's life will be one of hardship and struggle; all he can do is crawl around on the floor, where he risks getting smashed under the teacher's heel. The worm will want a friend—perhaps a bee, he decides. The bee can simply fly away from trouble, and the worm views that ability with—they'll scratch a word off the list—jealousy.

To round out the cast, he and Young think of a monkey—a character loosely based on a stuffed toy Young picked up as a freebie promotion from an auto shop a few days before. That toy monkey wears a cape ("Don't Monkey Around With Auto Repair"), and it emits a screeching noise if you throw it against something hard. Recently the toy has become an unlikely prop in her relationship with the boy. He'll sneak up to her and throw it at her, and he'll laugh when she jumps and feigns outrage. Later, she'll sneak up on him and do the same thing.

Just a cheap little toy, but also more—a connective thread between them. How could she explain to people how much ►





Urizar's wife, Celia Motta Rivera, and their daughters in their new kitchen

◀ fun they had together, how their personalities seemed to match? Even members of Young's own family struggled to understand what the two could possibly see in each other.

"I don't want to hear about Walfred," one of her grown children snapped when she started talking about the boy. "Why don't you talk about your own grandchildren?"

Her son quickly apologized, but the reaction seemed to betray an assumption a lot of people harbored: Attention and compassion are exhaustible commodities; if you give them to one person, it means you're taking them away from another.

Young's pastor at the First Presbyterian Church, the Reverend Trey Hegar, had helped arrange the adoption, and his congregation raised money to help pay Young's expenses. When the details were being worked out, Hegar had met with the members of Young's family, trying to calm their concerns, which were far from superficial. Young might be as sharp as any 82-year-old you'll ever meet, but she has a bad back, has trouble with stairs, and tires easily. Her family worried that the stress of taking on an undocumented child might seriously erode her health. Even Young understood that fear. But the idea of the boy living alone, orphaned in Mount Pleasant, violated her concept of fairness. "I said, 'It'll kill her *not* to do it,' Hegar recalled. "This is what she's living for."

And so here she is, a few months into the adoption, helping the boy dream up a fairy tale, trying to figure out what role the caped monkey should play. Eventually they decide the monkey should be the connection that lifts the worm above its lowly status. He can carry the worm on his back and fly him up to the bee's level (the monkey has a cape, so of course it can fly), allowing worm and bee to become equals and friends.

Is there some sort of symbolic meaning hiding in that narrative? Is Walfred the worm? Is Young the monkey that helps lift

him up? It's not entirely clear. Is she charitably filling a need in the Guatemalan boy's life, or is he filling a need in hers?

At 7:30 the next morning, Walfred bounces downstairs into the kitchen, his hair tousled from sleep.

"Can I use your hairspray?"

Young says sure, and Walfred ducks into the bathroom, passing the dry erase board in the kitchen with the message she wrote for him days before: "Shopping. Be back. Water flowers."

He emerges minutes later, his dark hair tamed, ready for her to drive him a few blocks to his school bus stop. To get to the garage, they exit the kitchen through a side door. He takes her arm, holding her steady as she descends the steps.

**URIZAR** has made no money, zero, since he returned to Guatemala. Steady income, it seems, is a foreign concept in Chocox.

He cuts the vegetables and the fruits that grow around the family's new house, and he gets some extra food from neighbors by helping them cut wood, clear brush, and plow fields by hand. If he's lucky he might be able to do that sort of work seven days out of a month. The brick house is nice to come home to at night, but like most of the new houses around here, its value exists only for the family that built it. Who, besides the cash-strapped families already in Chocox, would want to live so far from economic opportunity?

About 10 percent of Guatemala's gross domestic product comes from remittances wired home from workers abroad. The vast majority of those remittances—as many as 97 percent, according to the United Nations—are from the U.S. Those payments have increased almost every year since 1994, and the rate of that growth has been increasing steadily. After jumps of 13 percent and 14 percent, respectively, in 2015 and 2016, the total value of remittances increased by about 15 percent in 2017, to about \$7.5 billion.

Some analysts say the Trump administration's crackdowns on undocumented workers have spurred some of those increases; workers might be fearful that, in the era of ICE raids and increased border vigilance, their days of sending money home might be numbered.

That makes sense to Urizar, though he's never paid much attention to the politics of immigration. And he certainly doesn't hold a grudge against anyone in the U.S. Inside a room in his new house, a framed collage of snapshots hangs on a wall, mementos from his time in Iowa. He smiles when he looks at

But Young also suspected something else:  
Hidden affinities linked herself and the boy.  
A connection others couldn't see



them. They're good memories. When he speaks of the U.S., it's usually with fondness and respect for the people he met there. Instead of considering his deportation as a curse, he chooses to view his time in the U.S. as a fleeting blessing.

He misses Mount Pleasant—its orderliness and the clean, well-lighted streets. And he misses the money. Maybe undocumented workers can never truly know genuine economic security, but at least he felt secure for a while. Perhaps, if Walfred's immigration hearing next November goes well, the boy will feel it, too. Urizar dreams of a day when all of his children will be able to travel back and forth between the two countries without fear, when they can see their parents whenever they want, and when hard work pays off in peace of mind.

That day isn't today. He walks into the kitchen and watches Celia stir a pot over the hot stove. She's making caldo de gallina, boiling the hen they killed and plucked earlier that day.

Now they have one less hen.

**THE PLASTIC** plant, the seed processing facility, the Walmart distribution warehouse, the printing plant, and the construction supply company all sit in or around a large industrial park in Mount Pleasant's northeast corner. Together they account for more than 2,000 of the town's jobs.

The meat processing plant, West Liberty Foods LLC, is one of the park's anchors, employing more than 500 workers. Inside the main building, men and women in protective suits slice and package turkey, chicken, and other meats. The plant is one of the principal providers of meat to the Subway restaurant chain, a distinction that's a point of civic pride.

Many of the signs in and around the plant are in Spanish. One poster in the security office—"Hola, Oportunidades"—explains that anyone who refers a successful job applicant to the human resources department will get a \$100 bonus; if that applicant completes 90 days on the job, another \$100. The plant needs packagers, machine operators, trimmers, and general laborers, and the job requirements are generally the same: Applicants must be able "to work at line speed with the ability to make coordinated hand and finger movements," to withstand cold temperatures, and to work weekends and extended hours. Every Tuesday, the plant holds open interviews for pretty much anyone who walks in the door. Even so, dozens of positions at the plant have remained unfilled throughout the year.

The job crunch has been intense for years all over town, but increased scrutiny from ICE has made filling open slots even more challenging. In March, West Liberty Foods was fined \$52,100 and subjected to two years of U.S. Department of Justice monitoring for violating antidiscrimination laws within immigration policy. Company managers at another of its processing plants had asked workers who were non-U.S. citizens to provide green cards or other documents showing they were authorized to work

in the country; the company didn't ask for the same documentation from employees believed to be citizens. That's considered a double standard, and it's against the law.

Some business owners in Mount Pleasant say immigration regulations lock them in a damned-if-you-do, damned-if-you-don't fix. If you step over the line in trying to verify that workers have proper work permits, you can get fined; if you don't go far enough and you employ workers without valid documents, you can end up like the concrete plant.

For now, workers at that plant are still reporting for their shifts, still pumping out precast beams and columns. ICE characterizes the raid as an ongoing case and won't say whether the company will face criminal charges. The company owners declined to comment on the matter.

In 2008, ICE agents raided a kosher slaughterhouse 150 miles north of Mount Pleasant, in Postville, Iowa, arresting almost 400 undocumented workers. After financial irregularities were found at the plant, its chief executive was sentenced to 27 years in prison. In December 2017, President Trump commuted the sentence, allowing the executive to walk free after serving eight years. He served no time for the immigration violations.

The case fit into the historical pattern: Workers, not employers, have been saddled with the brunt of the punishment when companies are caught employing undocumented immigrants. The main reason is that they're easier to prosecute. If someone is caught working without proper employment status, he or she can be prosecuted relatively easily for using fraudulent documents. When going after companies, prosecutors have to show that the employer knew that the workers didn't have legal status and employed them anyway—a much harder case to make.

As ICE pushes more cases against undocumented immigrants into the federal court system, prosecutors could have even less incentive to pursue employers, says William Stock, an immigration lawyer in Pennsylvania who served as president of the American Immigration Lawyers Association in 2017. The courts are already stretched thin: About ►

In her kitchen, Young and Walfred brush up on the teenager's English skills







● Walfred talks to his parents back in Chocox. He hasn't seen his father since August, his mother since leaving Guatemala for Mount Pleasant in November 2016

◀ 38 percent of all cases in the federal court system are illegal-entry hearings, and in districts with large immigrant populations, the number is much higher. “If you say, ‘Along with all the other things you’re doing right now, we’d really like you to focus some attention on prosecuting an employer,’ the U.S. attorney is going to say, ‘It’s not as much a priority for me as it is for you,’” Stock says.

Most of the 32 workers arrested at the Mount Pleasant concrete plant in May are still waiting for their court hearings. Even Urizar, from his house in Chocox, continues to unintentionally tie up courtrooms in Iowa, and his case illustrates the confusion and clutter that permeate the system. When he was transferred to the Hardin County Detention Center, his lawyers weren’t told about the move and had to search for him. Later, at his final hearing before a judge in late June, Urizar didn’t appear in court; no one showed up at the prison to drive him to the courtroom, three hours away. Then Urizar’s lawyers weren’t able to confirm his deportation until six weeks after he’d been flown to Guatemala. Meanwhile, a

criminal case against him continues, charging him with illegal reentry into the U.S. and the fraudulent misuse of identification documents, including a Social Security number. His attorneys have repeatedly tried to get the case dismissed, arguing that Urizar’s constitutional rights to due process and legal representation are violated because he can no longer consult with counsel. As of late December, the criminal case against Urizar was still active.

**IN HIS** red Adidas hoodie, gray Levi’s, and white Nike Air high-tops, Walfred blends in with the other sophomores. His dark hair is buzzed short on the sides and back, longer on top. Young’s hairdresser, at the boy’s request, shaved the symbol of a small cross above one ear—a declaration of both style and faith. Two weeks after the cut, it’s blurred and almost indistinct.

One afternoon this fall two friends of his came to Young’s house after school. Young ducked into the living room to introduce herself and found them slouching on the couches,





absorbed in their cellphones. They didn't seem to notice her when she said hello. She shrugged, turned to go back into the kitchen, and then stopped herself. She couldn't let that go.

"OK, fellas, we're gonna have a little lesson here," she said, ordering them to put down their phones. She explained that when a lady walks into a room, they should stand. She offered them a chance for redemption, introducing herself once again. "This is where you say to me, 'Hi, nice to meet you!'"

She truly hated those cellphones, and she didn't like how Walfred seemed to be adopting his friends' obsession with them. When the other boys left, she asked Walfred if she'd embarrassed him. "No, Grandma," he told her. "You were great."

The living arrangement at times has tested her patience and stamina, but it's moments like this that melt her heart. If some of Walfred's new habits aren't the ones she'd choose for him, she tries to remind herself that it's not easy for a teen to feel comfortably accepted anywhere, much less within a culture that's completely new. Recently, Walfred asked her to wash his shoelaces, which had gotten smudged. She tied them together so they wouldn't get lost in the washing machine; they came out perfectly clean, and now they were almost

invisible against his spotless Nikes. Those shoestrings are one more detail no one else sees but which have become visible to her since the boy came into her life. It's like a page out of one of those books of optical illusions: a hidden element buried in the middle of a picture suddenly pops into focus, and now you can't unsee what you'd previously overlooked. Parts of Mount Pleasant are like that for her now. The picture is forever changed.

One day, Walfred wanted chickens—whole chickens, with the skin still on, the kind needed to make caldo de gallina. Young took him to Yenchay's Oriental Food Market, a small grocery in the middle of the town square. It's occupied the same prime spot for almost 30 years, but when Young recently mentioned it to some friends of hers, they seemed puzzled. "It's like they never noticed it before," she says.

The owner of the store is Yenchay Tangkhpanya, whose family was one of the first from Laos to be resettled in Mount Pleasant in 1975. She landed her first job at the Iris restaurant, working for Heaton, and a decade later she and her husband, also from Laos, opened the store, stocking items that catered to their fellow Asian immigrants. "Now my store isn't for one kind of people," she says. "It's international." The

aisles are full of fruits, vegetables, and packaged food from Southeast Asia, which share shelf space with tortillas, salsas, and Caribbean spices.

Walfred carried his chickens to the front counter, and with Young's encouragement, he decided to try to cash a check for the first time. She'd recently opened an account for him, a place where he could keep track of the money a local church charity had given him, as well as the extra cash he sometimes picked up by helping a friend do chores after school. As they fished out Walfred's checkbook, Tangkhpanya took an immediate and protective interest in the boy. She offered an impromptu lesson in balancing an account—a service she'd offered countless newcomers over the years. "People need someone to show them how to do these things," she says.

It wasn't long after that trip that Walfred asked Young to take him to the Heidelberg Motel, on the south edge of town. The place was a local roadside landmark, a classic 1950s-style motor lodge. But Young didn't really understand the significance such a place could have for someone such as Walfred, until she walked in the door.

The current owner of the motel, a man who asked not to be named for this story, came to Mount Pleasant from Hong Kong and later married a Guatemalan woman. Cross his heart, he worked seven days a week, 17 hours a day, for 15 consecutive years without a single day off, just so their kids could have a better life, and now take a look: The walls above the check-in counter are covered with certificates of academic achievement, awards the kids have earned from the local school district.

His lobby doubles as a Trailways bus station, and for many foreign-born workers, the Heidelberg is the gateway to Mount Pleasant. Like Tangkhpanya, he's become an informal guide for newcomers—another example of how the second wave of immigrants is melding with the first, some of whom have created a commercial support network that can be invisible to those who don't need to look for it.

Next to the front counter, a bank of four red telephones sits on a table, and these attract a steady stream of customers, most of them Spanish speakers who've just collected their paychecks. They use the phones to wire cash to places such as Guatemala and Mexico.

This is why Walfred asked Young to bring him to the Heidelberg. He wanted to send some of his spending money back to his father.

The red phones are Mount Pleasant's direct link to Quiché. They tether two places that, at first glance, have little reason to be linked. When Walfred picks up the receiver and provides the Spanish-speaking operator with his parents' information, his money instantly travels almost 2,500 miles south, all the way to rural Guatemala.

Urizar, on the far end of that transaction, has switched roles with his son. Traditional assumptions regarding the dependence between a parent and a child have been flipped. Urizar collects the money and returns to a house—an unfinished house, with an uncertain future—that wouldn't exist if Mount Pleasant didn't. **B**







*Thieves are pulling off audacious metal heists at Europe's largest port. They're even stealing from the Cobalt Jesus*

---

# GRAND THEFT COBALT

**ROTTERDAM**

---

*By Kit Chellel and  
Mark Burton*

*Illustration by  
Sophy Hollington*



**A group of bankers, brokers, and journalists was huddled outside a dingy warehouse along the Nieuwe Maas River in Rotterdam on a gray morning last January. All around was the industrial sprawl of Europe's largest port, a landscape of cranes and colorful shipping containers stacked up like Lego bricks, reversing trucks and squalling gulls.**

The building was run by Vollers Group GmbH, a logistics specialist based in Germany. One of its managers, Martijn Wijbrandi, led his visitors inside to get high-viz jackets and a safety briefing. We've never had a problem with theft, Wijbrandi said, but it pays to be careful. He pointed out the alarm system, secured by a PIN code. On the warehouse floor, everyone filed past piles of magnesium bricks and bags of coffee to an area walled off by steel sheets that rose almost to the ceiling. A security camera was aimed at the padlocked sliding door.

Wijbrandi gestured to a tattooed young employee in a baseball cap who'd been driving a forklift. The man strolled over to unlock the doors, revealing hundreds of orange and blue drums piled four-high on pallets. Each container was full of chunks of cobalt, a formerly obscure, unwanted metal that got its name from the German *kobold*, or "goblin," because it vexed medieval miners who, trying to extract more valuable substances from its ore, were instead rewarded with worthless powder or toxic gas. It has lately become highly valuable because it prevents the lithium-ion batteries found in mobile phones and electric cars from overheating and bursting into flames. Cobalt's value surged more than 300 percent from 2016 to its 2018 high, reaching a record of almost \$100,000 a ton.

One of the group, Anthony Milewski, broke off to pose for pictures in front of the barrels. Milewski is the founder and chief executive officer of Cobalt 27 Capital Corp., a kind of metal hedge fund that offers investors an indirect way to bet on a battery-powered future. The Kennewick, Wash., native had amassed what's thought to be the world's largest private stockpile of the bluish-gray metal—about 3,000 tons, not far behind

the largest public reserve, the Chinese government's—and was hoping to raise money to acquire more. The vast majority of the company's material was locked away in Rotterdam, including some 76 tons at this facility. He'd arranged the tour to show Cobalt 27's backers their stash was in safe hands.

An energetic former lawyer with a shaved head, Milewski began buying cobalt in 2015 as a fund manager at Pala Investments Ltd., the firm created by Russian coal and steel billionaire Vladimir Iorich. In 2017, Milewski recapitalized a dormant mining company by issuing shares on the Toronto Stock Exchange and used the funds to purchase cobalt. He also acquired Pala's cobalt in exchange for about 20 percent of the shares in the company, which he renamed Cobalt 27. Milewski is so enamored of his chosen commodity that he can summon the latest statistics about cobalt production and electric car usage at will. "I don't know where I get them from," he once joked at an industry dinner. "They just come to me. I'm like the Cobalt Jesus."

Wijbrandi pried open some drums to show visitors what cobalt looks like: cathodes in little squares that were rough and dull on the surface but glittery and jagged underneath. Some of the visitors took samples as souvenirs, and the tour came to an end. Vollers was just one of the companies being paid to look after Milewski's metal in Rotterdam. There was another site to visit.

Months later, on July 9, a worker arrived at the Vollers warehouse at about 7 a.m. to open up for the day. He entered a code to unlock the main gate. Nothing seemed amiss until he reached the cobalt section of the warehouse floor and noticed that the padlock had been cut. He contacted his boss, who called the police. When officers arrived about an hour later, the only other visible sign of a break-in was a missing recording unit for the security cameras. That, and the drums of cobalt—112 tons of it, worth about \$10 million—were gone.

**T**he Minor Metals Trade Association, a London-based industry group that Vollers is registered with, made the first public statement about the incident 10 days later. Vollers didn't comment, citing the ongoing police investigation. When a reporter asked Milewski if Cobalt 27 had been affected, he declined to comment at first. Then in August the company revealed in an earnings statement that it owned 76 of the missing 112 tons. All the metal was insured, Cobalt 27 said, assuring shareholders that the rest of its holdings were safe.

News of the heist spread quickly through the tiny network of people who trade in cobalt. All of them, it seemed, had stories about metal thieves. David Weight, president of the Cobalt Institute, another industry body, told *Bloomberg Businessweek* he'd once sent a consignment to the U.S. from Rotterdam in the 1980s and received a note from the buyer in America that read, "Thanks for the gravel." Someone—Weight never found out who—had taken the lids off the drums, removed the metal, and replaced it. Around the same time, Weight said, armed men held up a freight train en route to South Africa, decoupled the carriages containing





MILEWSKI, CEO OF COBALT 27 CAPITAL, IN ROTTERDAM



COBALT CATHODES OWNED BY COBALT 27

cobalt, and towed them away on a separate getaway train.

The Rotterdam case was something different altogether, unprecedented in its scale. Cobalt is tricky to mine, transport, and sell. A typical drum weighs 250 kilograms (551 pounds), making it tough to move unless you're a forklift operator or an Icelandic strongman. One metal trader told a story about a truck driver in Africa who, he'd heard, stole some cargo and stashed it in the vehicle's spare tire. Now weighing almost a ton, the wheel sheared off midjourney, rolling down a hill and over a car, killing the occupants.

If thieves do manage to steal some, they'll encounter a new host of problems: Cobalt can be toxic, so anyone trading it legally typically needs a special license. It can also be of troubling provenance—most of the world's supply lies in Congo, where child labor and corruption are widespread—meaning the few industrial buyers who trade in the metal ask for documentation to establish that it's from a reputable

source. (Cobalt 27 has a policy of sourcing its metal from mines outside Congo.)

London's cobalt experts could only speculate on how someone could steal 112 tons of rare metal from a secure warehouse, and Vollers declined to comment for this story. Getting more answers would require a trip to the coastal region of the Netherlands and Belgium that has for centuries been the gateway to European trade and to its criminal underworld. One man in particular could help a reporter navigate the port of Rotterdam, a veteran trader said. "You need to speak to Hans."

**R**otterdam was destroyed by the Germans during World War II and rebuilt to become, for a time, the world's biggest and most advanced port. Locals joke that it was remodeled by the Nazis. Once seen as the roughhouse younger brother to sophisticated Amsterdam, it's grown into postindustrial hipness. The town center is immaculate, with edgy modern architecture standing comfortably alongside pockets of colonial-era grandeur. Young residents ride around on bicycles without any sign of the fear, evident in London or New York, of getting run down by motorists. Dutch orderliness is apparent from the moment you stroll through customs at the airport to find your baggage already waiting for you. Yet Rotterdam is still a port, with a port's lawless side. Just this October, customs officials found 1,300 kilos of cocaine hidden inside a frozen chicken meat shipment.

"There is never a day the same, but it's not always easy," said T.J. Meeuwisse—aka Hans. At 60 he's a huge man, especially around the middle, with patchy skin and a repertoire of bawdy jokes, and he's worked at the port since he was 19. He used to run a warehouse business and now works as a logistics consultant.

A few years ago, he said, he was on a list of people designated to respond when security alarms were triggered at the warehouses he oversaw. Eventually the port police warned him to stop showing up because there were criminal gangs operating in the area. You take a bullet, and that's it, they told him. "In that case, it should be a big bullet," he recalled replying, grinning to reveal long, thin teeth. He was working on this day out of a riverside restaurant with waterproof menus and local soccer team jerseys hung on the wall. Outside, as cargo ships slid past and a refinery flared off gas, the port's scale was apparent. Nothing but industry for miles in every direction. Lots of places to hide a haul of stolen metal.

Meeuwisse said he was aware of the cobalt heist but couldn't talk about it because some of his clients use Vollers, and he was bound by a nondisclosure agreement. Like ►

*The ex-cop explained that he wasn't saying the Netherlands is just like Mexico. "It's about a parallel economy," he said. "We have the best infrastructure in Europe, and not only the good guys are using it"*



*"I am on an uninhabited island of money that I have left  
over from the kobal [sic] theft. Go and write about it.. [sic] Idiot"*

◀ everyone at the port, he knows that thieves keep an eye on the commodities market no less than London traders. "We are all cooking with the same water," he said. "There is no warehouse in Rotterdam that hasn't had an issue." About a decade ago, 50 tons of ferromolybdenum, an alloy used in steel production, was stolen from one of his sites, Meeuwisse said. The thieves had cut through three fences and sabotaged the antennas that sent the alarm signal. The metal's owner recouped the money from its insurers, and although the police came out to investigate, they never arrested anyone. As for the criminals themselves, Meeuwisse said he had no idea who they were. He professed never to have met one.

Jan Struijs, chairman of the Dutch police union and former head of a criminal investigation squad in Rotterdam, offered a little more insight into the city's underworld. He met with *Bloomberg Businessweek* near the Cool District, home to brightly lit bars and Hawaiian poke joints. "We have the characteristics of a narco state," he said, as young Rotterdammers in skinny jeans sipped coffee and fiddled obliviously with their smartphones.

Struijs explained that he wasn't comparing the Netherlands to Mexico. "It's about a parallel economy," he said. "We have the best infrastructure in Europe, and not only the good guys are using it." Smugglers use the Netherlands to import cocaine, black-market cigarettes, counterfeit medicine. Lots of drugs come from there, too. It's a world capital for ecstasy production, including a recent global flood of carrot-colored pills stamped with Donald Trump's likeness.

One problem, Struijs said, is that the police tend to catch only small-time crooks. Gang leaders, meanwhile, escape with their loot and embed themselves in the legitimate economy. "They own hotels, property, and garden centers," Struijs said. "They have been doing this for 20 or 30 years." This world of what he called "gray corruption" connected organized crime groups from Italy, Albania, and North Africa to corrupt, or corruptible, officials and dockworkers in Rotterdam. About 1 in 7 port employees in the city has been approached by a criminal, according to a police survey.

The recent warehouse heist? "I think it's the tip of the iceberg," Struijs said.

**T**he July incident wasn't the first time someone had stolen metal from Vollers. It wasn't even the first time someone had stolen cobalt from Vollers. Back in 2008 the company worked with a trucking outfit called Sigma Phi that employed ex-cons, according to Peter Poels, an inspector in the Belgian Federal Police who worked on the case. Among the felons was Gunther Jacobs, a serial thief well-known to police, who made it his business to befriend warehouse workers wherever he went. Jacobs heard, through some Turkish and Moroccan employees, that Vollers had a cobalt shipment coming in. On Dec. 23, according to documents from a subsequent insurance

dispute, he locked himself inside the warehouse, waited until the area cleared out for the evening, then disabled the alarm and let his associates in. It took them six hours to load 20 tons of cobalt onto trucks, which his colleagues drove to the Netherlands and stashed in a locked container.

According to Poels, Jacobs had a relationship with a Dutch businessman and horse breeder who had links to the drug trade, the local chapter of the Hells Angels, and, crucially, a network of scrap metal dealers who didn't ask too many questions about paperwork. Vollers didn't notice for more than a month that the cobalt was gone, until the metal's owner, Axl Resources Ltd., ordered it shipped out. Axl successfully sued its insurers in London to recoup the \$1.8 million it lost. The cobalt was never recovered.

Jacobs and 13 other members of his gang were convicted and jailed in 2011, after a Belgian investigation called Operation Pepperoni. The thieves also confessed to taking more than 100 tons of copper, 23 pallets of Lee Cooper jeans, and 817 Yamaha saxophones during a two-year spree. Many of the truck drivers who worked with Jacobs had minor convictions on their records, Poels said, adding that some were heavily in debt and eager to make money on the side. The Dutch horse breeder later survived two assassination attempts. "Criminal gangs," Poels said, "are multidisciplined."

The Jacobs operation was less sophisticated than some other cobalt heists. As port security systems have improved, criminals have adapted, too, targeting some of the biggest names in the industry. In June 2012 a vessel delivered three containers of cobalt briquettes to an Antwerp shipping terminal. The cobalt was to be collected by a warehousing company called C. Steinweg Group on behalf of the buyer, Glencore Plc, the global commodities trading firm. When Steinweg's truckers arrived to pick up the containers, they found that two had already been collected, according to legal documents from the resulting insurance dispute. What happened to the cobalt is unknown, but it's assumed that the thieves somehow got hold of the secure code Steinweg used to pick up deliveries from the terminal.

Glencore sued the shipping company for breach of contract and won \$1.1 million. In the course of the lawsuit, it emerged that both the shipping firm and Steinweg had been targeted by computer hackers. A Steinweg manager testified that a remote electronic surveillance device was found next to the office of the company's finance director, though the manager said it had been blocked by a firewall. A London judge decided there was no evidence the security codes had been stolen from Steinweg's systems, but the incident showed how far the criminal fraternity was willing to go.

Steinweg is familiar with the port's seedy side. Founded in Rotterdam more than a century ago, it's become a conglomerate that has also owned supermarkets and even a nightclub for a period in the 1980s and '90s—though several



former patrons say “nightclub” is a flattering description of the Embassy, known for its pink-and-mirrors décor and occasional strip shows. Former executive Eddy de Werk had been a regular at the club, and he liked it so much he bought the place. (De Werk died in 2010.) When the Embassy was finally shut down in 1999, the Dutch press reported that it was a sex club employing illegal prostitutes.

And yet, Steinweg is the biggest and most reputable name in its industry, the IBM of warehousing. Nobody ever got fired for choosing Steinweg. After the theft from the Vollers warehouse, Cobalt 27 placed all of its metal with the company. Steinweg also took the only existing video footage of the 2018 Vollers cobalt heist, captured by a security camera at a facility up the street, according to several people familiar with the investigation. It showed three lorries (or one lorry making multiple trips) entering the warehouse on Friday, July 6, between 7:45 a.m. and 12:15 p.m. Each time, the vehicle was at the warehouse for a little over an hour and departed with its trailer visibly sagging. The operation’s efficiency was spectacular: Whereas the Antwerp crew took six hours to make off with 20 tons of cobalt, the Rotterdam gang took several hundred bright orange and blue drums weighing 112 tons in under five hours. In broad daylight.

Steinweg and the Dutch police declined to make the footage available. Contacted for comment about that and other matters in this story, Steinweg Chief Executive Officer Ulf Boll responded: “Unfortunately, I am unable to help you, sorry. Company policy is that we do not talk to the press, never, on no occasion. No exceptions.” A spokeswoman for the Dutch police said the investigation was ongoing and it was too early to draw conclusions. Six people have been detained for questioning so far, four of whom were brought before a judge for a preliminary hearing, she said.

After the robbery, Vollers moved out of its old location and into a warehouse farther down the river. In October a *Businessweek* reporter visited the new site after getting no response to messages. Pressing the buzzer at the gate prompted the traffic barrier to rise and an unshaven man in a luminous yellow jacket to walk over and ask, “Can I help?” It was Wijbrandi, the Vollers manager. He explained that he was unable to comment and that it was best to contact his manager in Amsterdam. But he said he remembered the tour

he’d given in January: “I have questions about that visit. There were too many people and too many pictures.”

The tattooed forklift driver who’d opened the sliding door during the tour was actually the warehouse foreman. His name is Nick Ponsen, and aside from port logistics, he’s also an amateur rapper whose earnest videos can be found on YouTube (think early Eminem without the sense of humor). He was fired in the wake of the robbery for reasons that neither he nor Vollers will discuss. Reached via LinkedIn, Ponsen responded to questions at first with sarcasm, then with hostility. He confirmed he’d been let go by Vollers “without any further consequences” and blamed the theft on the “childish” security measures taken by his former employers. He wrote that he was unable to talk because “I am on an uninhabited island of money that I have left over from the kobal [sic] theft.” Asked whether that meant he’d been involved, he replied that he wasn’t interested in *Businessweek*’s questions. “Go and write about it.. [sic] Idiot.”

In October, Milewski hosted a cocktail party at the Arts Club during LME Week, a yearly outbreak of backslapping and boozing organized by the London Metal Exchange. By 5 p.m. a crowd of industry luminaries had already gathered in the basement bar, drinking Negronis and bubbly. Milewski, in jeans and a blazer, was on Diet Coke. He said he never drinks. Later that night, he gave a speech in which he rified that the worst thing that could happen to the cobalt market “would be for this room to catch fire.”

The joke fell flat, but the party buzzed on. No one was talking about the thieves stalking Europe’s biggest ports. Instead, it was routine trader chatter: who was feuding with whom, which rival had amassed the biggest position. One mining executive toted around a sample of gold ore in a plastic case, to celebrate a recent discovery. From time to time, the conversation turned to cobalt prices, which had lately dipped, driven by a wave of new supply. Companies have also been developing advances in battery-making that may ultimately diminish the need for the metal. The sooner the better, for some—Elon Musk has said it’s getting so expensive he wants it out of Tesla Inc.’s batteries entirely.

Milewski is still buying up cobalt from mines outside of central Africa. He’s raised about a billion dollars from banks and financiers for the purpose since 2017, signing so-called streaming deals that have Cobalt 27 paying upfront for access to a miner’s future production. His nickname is spreading, too. Whenever he calls a Canadian bank he does regular business with, he said, he gets a confused response from the receptionists because one of the bankers entered his name into the phone system as “Cobalt Jesus.”

And why not? Milewski has pulled off at least one cobalt miracle. In November his company’s insurers paid out for the missing 76 tons—at the top market price for July, even though cobalt had dropped almost 20 percent since then. The victims made a small profit from the crime. “At the end of the day,” Milewski said, “the system worked as it’s supposed to.” **B**

## PRICE OF COBALT

U.S. DOLLARS PER METRIC TON AT MONTH'S END





ARTWORK MADE OF WILDFIRE ASHES



**DID YOU KNOW EMBERS FROM AN UNATTENDED  
BACKYARD BONFIRE CAN SPARK A WILDFIRE?  
SPARK A CHANGE, NOT A WILDFIRE.**



ONLY YOU CAN PREVENT WILDFIRES  
**SMOKEYBEAR.COM**





The Majlis hotel  
in Lamu, Kenya

# P U R S U I T S

55

Beaches barely touched  
by human feet? Check.  
Business hubs reborn as cultural  
capitals? Indeed. Chances  
for awe-inspiring adventure?  
Bingo. Here are 21 destinations  
to add to your list this  
year—and when it's best to  
check them off

January 7, 2019

Edited by  
Nikki Ekstein

Businessweek.com



# Oh, Savannah!

Keep it cozy—  
but chic—  
in March, April,  
and May

Rainbow Row  
in Savannah's  
Historic District

## Ditch the Sweet Tea in Savannah

Long an artsy also-ran to Charleston, S.C., Savannah, Ga., has a food scene that's emerging into the national spotlight thanks to the **Grey**—once a segregated bus station, now an African-inspired restaurant serving Senegalese-spiced lamb and curried roast chicken. The team behind it has recently opened the **Grey Market**, a lunch-counter-slash-general-store. (Get the Sizzlin' Smoky Pig sandwich served with an egg and pepper relish.) On the retail front, alumni from the Savannah College of Art and Design, which is celebrating its 40th year, have been sticking around after graduation to start exciting businesses, including leather maker **Satchel** and honey purveyor **Savannah Bee Co.** And now travelers can upgrade from small, Southern-style inns and B&Bs, if they wish: The **Perry Lane** arrived in the Historic District last June—it's the city's first high-luxury hotel, with 167 individually designed rooms. That was followed by the midcentury-styled **Alida Hotel** on the riverfront. A little farther east, a **JW Marriott** will open in an abandoned, century-old power plant. It will be surrounded by 4.5 acres of restaurants, shops, concert halls, and art galleries that, along with the hotel, represent a combined investment of roughly a half a billion dollars.

TYPE ILLUSTRATION BY FLATBUSH BROWN. STAMP ILLUSTRATION BY JACI KESSLER LUBLINER. SAVANNAH PHOTOGRAPH BY GABRIELA HERMAN FOR BLOOMBERG BUSINESSWEEK. HECKFIELD: COURTESY HECKFIELD PLACE. PREVIOUS PAGE: GEORGINA GOODWIN FOR BLOOMBERG BUSINESSWEEK

## RESOLUTION NO. 1 Challenge Your Preconceptions

**Chad**, a Central African country that was once a hotbed for poachers, is emerging as the continent's model for successful conservation. In Zakouma National Park, all Big Five species

have been reintroduced after a long-term investment by African Parks, an organization over which Prince Harry presides. Where to stay? Camp Nomade, a fully mobile, six-tent camp that will be harder to book in 2020, when it begins limiting reservations to travelers making philanthropic donations. In another universe altogether, consider a stop in **Kuala Lumpur**. The staid business hub

is blossoming into a legit lifestyle destination because of a sudden boom in high-end lodging and restaurants, including the 253-room RuMa Hotel & Residences and Dewakan, a modern Malaysian dining spot. The city is also anticipating a new 26-building financial district; its Exchange 106 skyscraper will be Southeast Asia's tallest at 1,614 feet.







A guest room at Heckfield Place

## Discover New Ways to Love Paris

The City of Light never needs a sales pitch, but 2019 brings several museums that may lure you away from the typical attractions. When the **Gabrielle Chanel Rooms** open later this year on the lower level of the **Palais Galliera**, the \$6.5 million space will be the first to permanently showcase multiple fashion designers. (The House of Chanel has largely financed it.) Also in 2019, the **Pinault Collection** will be unveiled at the Bourse de Commerce, a 250-year-old structure inspired by the Pantheon. After more than a decade of work by Japanese architect Tadao Ando, it's now a temple to contemporary art. It will include 3,000 works from the personal collection of François Pinault, the billionaire founder of Kering, and a restaurant run by the father-and-son team of Michel and Sébastien Bras—all a stone's throw from the Louvre. As for where to sleep, skip the palace hotels for one of the 30 rooms at **J.K. Place**, an Italian boutique brand known for drawing the cool crowd wherever it goes. This spring it's importing its signature residential appeal (along with a Sisley spa and an indoor pool) to the Left Bank, near the Musée d'Orsay.

## Lift Off in Houston

Spring will be stellar in Space City. To celebrate the 50th anniversary of the moon landing, the **Johnson Space Center** is restoring everything inside the original Mission Control—down to the consoles and the trash cans—to look exactly as it did in July 1969 during the Apollo 11 mission. Closer to downtown, the **Museum of Fine Arts** is wrapping up a \$450 million expansion that added a roof garden, an amphitheater, and a public plaza; the **Holocaust Museum** will relocate and double its size by summer. And because everything is bigger in Texas, the city is welcoming not one, not two, but four jumbo food courts, including the 9,000-square-foot **Bravery Chef Hall**. Culinary talent here will focus on piloting new concepts, including a wood-oven steakhouse from famed cattle rancher Felix Florez and a pasta joint from Ben McPherson, an expert in the art of fried chicken. Fine lodging options are also taking flight. Joining the city's recently renovated **Four Seasons** is the year-old **Post Oak**—which has the benefit of not being attached to a convention center—plus an **InterContinental** and a **Thompson**.

The City of Light never needs a sales pitch, but 2019 brings several museums that may lure you away from the typical attractions. When the **Gabrielle Chanel Rooms** open later this year on the lower level of the **Palais Galliera**, the \$6.5 million space will be the first to permanently showcase multiple

## Pop Into Posh England

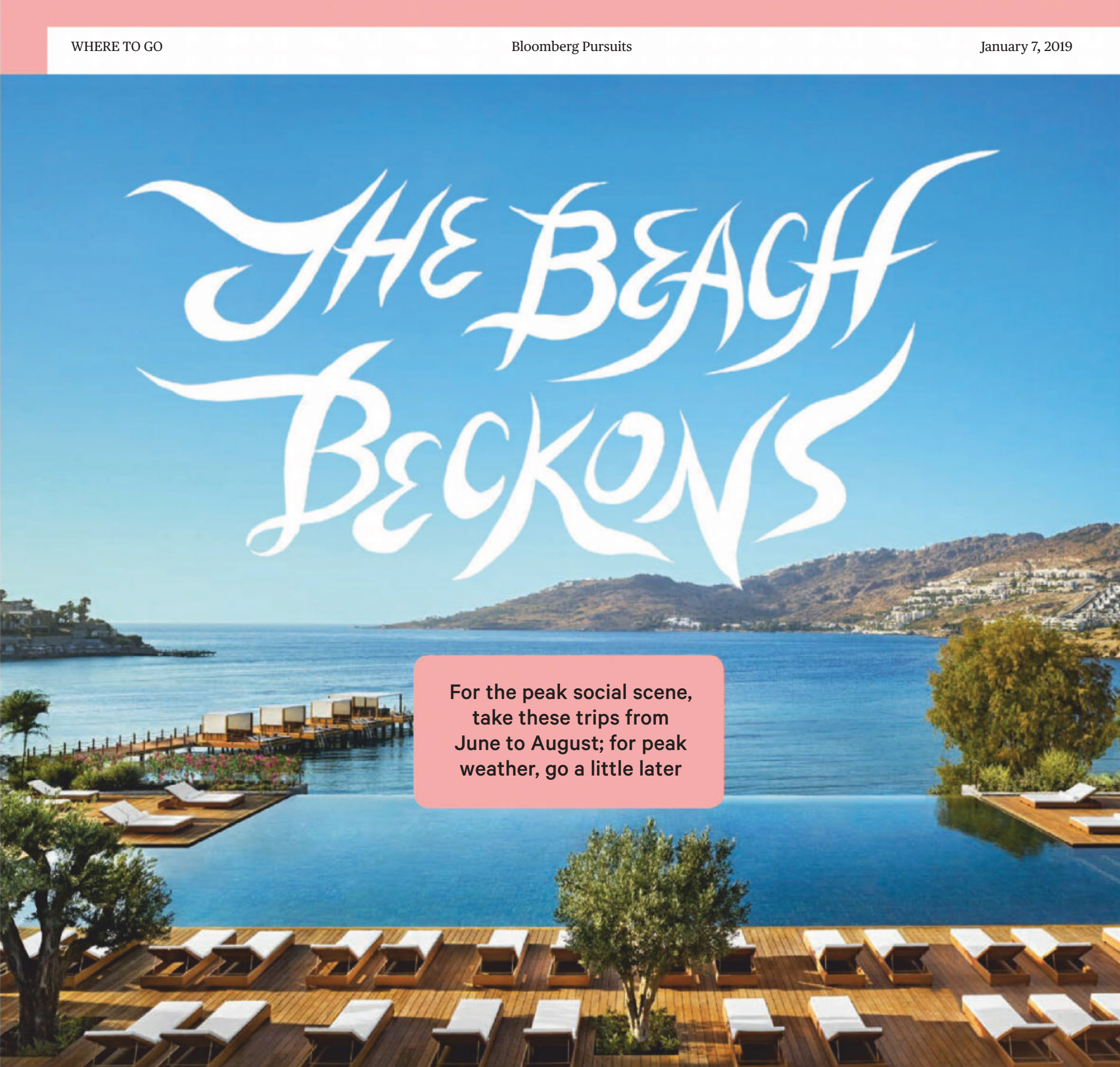
Next time you land at Heathrow, take the train away from London rather than toward it. Within an hour, you'll arrive at one of Europe's buzziest new hotels: **Heckfield Place**, a Georgian manor house in Hampshire that finally opened in the fall after a six-year delay. The wait was worth it, particularly for foodies, who can enjoy rustic, open-fire meals by chef Skye Gyngell of London's acclaimed **Spring**. Ingredients come from its

Heckfield Place's speaker series, the Assembly, has already included journalist Christiane Amanpour and actor Tim McInnerny

farm and gardens. For a more tranquil experience, visit **Monkey Island Estate**, in the middle of the Thames near the jewel-like village of Bray.

Reachable by footbridge or boat, the island has been the haunt of monks, aristocrats, and artists during its 800-year history. After falling into disrepair in the 1980s, it's been revitalized as a swanky guesthouse with a decadent afternoon tea and 41 rooms designed by Alexandra Champalimaud. If you're after a more traditional *Downton Abbey* vibe, try the **House at Beaverbrook** in Surrey. Its \$90 million renovation preserved old-world flourishes such as a 1920s-style brass bar, waistcoated servers, and 18 rooms named for famous guests like Elizabeth Taylor and Winston Churchill.





# THE BEACH Beckons

For the peak social scene,  
take these trips from  
June to August; for peak  
weather, go a little later

## Put on Your Party Pants. Bodrum Is Back

Three years after a spike in terrorism shattered Turkey's travel industry, the country is making a bold comeback. From January to October 2018, the number of visitors increased 22 percent, to 36 million; that will only rise now that the first phase of a massive airport project has opened in the country's biggest city. By the time it's fully operational, Istanbul Ataturk International Airport aims to be one of the world's busiest air hubs by passenger

load, shuttling as many as 90 million people annually. The savviest of them will skip the Bosphorus this time around and make a beeline for the coast. History buffs can explore the port town of Canakkale, where the new **Troy Museum** (at the fabled archaeological site) houses 5,000 artifacts, including a 13th century copy of *The Iliad* and a Polyxena sarcophagus from 500 B.C. Party chasers can head to Bodrum to scope out high-profile openings from **Six Senses** and Ian Schrager's **Edition Hotels**. With infinity pools facing the Aegean, celebrity-approved beach clubs, spas with steamy *hammams*, and sunbathing nooks shrouded by olive groves, the see-and-be-seen destination is a revitalized alternative to St-Tropez and Mykonos.



The Edition Hotel  
in Bodrum

## Speed to Kenya for a Three-Day Safari

No, really: If you don't have the flexibility for a long trip but have always wanted to watch 1.7 million

The world's last two northern white rhinos can be spotted at Ol Pejeta Conservancy, about 120 miles north of Nairobi

wildebeests thunder across the Maasai Mara, this is the year to realize your dream. A new nonstop route

on Kenya Airways from New York's JFK to Nairobi makes the country's charms—witnessing the Great Migration, shopping for elaborate beaded jewelry, and riding camels in the desert—more accessible than ever to East Coasters. The 14-hour overnight flight lands in the capital in the morning, so you can make it to your safari camp in time for lunch and an afternoon game drive. Within an hour by plane from Nairobi, you can be at the new **Sanctuary Olonana**, whose 14 glass-walled suites have wide decks facing the Mara River, or &Beyond's recently rebuilt **Bateleur Camp**, where you can watch elephants graze while you bask in a crescent-shaped infinity pool. Or skip the savanna altogether and head for Kenya's beaches, which are less developed than Zanzibar's or Mozambique's. Lamu—an island with a Unesco-protected, 14th century Swahili village and colorful sailboats lining its harbor—is an underrated favorite and well worth the extra (short) flight.

## Take a Not-So-Spring Break In Fort Lauderdale

For the ease of a Miami getaway without the 24-hour party vibe, head north. Once sleepy, Fort Lauderdale and Palm Beach are waking up now that restaurants such as **Florie's** have arrived. The 200-seat Mediterranean-inspired spot in the renovated **Four Seasons Resort Palm Beach** is by Mauro Colagreco, whose Mirazur in the south of France is ranked third on the World's 50 Best Restaurants list. Another worth checking out? **Dune**, a dining concept in Fort Lauderdale from Auberge Resorts Collection that spotlights charcoal-grilled dishes and Napa Valley wines. One hotel is even betting the beach will no longer be the area's primary draw: The 209-room **Dalmar**, in the heart of Las Olas, Fort Lauderdale's culture and retail district, has a retro vibe, with palm-printed wallpapers and midcentury brass chandeliers. But its rooftop bar, run by the New York-based Death & Co team, is so of-the-moment it's luring locals from Miami—now only 30 minutes away on Richard Branson's lightning-fast (and quickly expanding) Virgin train.

## Be More Chill in the Balearics

After a few tumultuous seasons in which Mallorca, Formentera, Ibiza, and Menorca were almost overrun with tourists, Spain has taken strides toward restoring a sense of lazy,

languid idyll to its isles. For one thing, it banned Airbnb last year and put an end to new hotel licenses to curb overdevelopment. The openings across the Balearic Islands that were grandfathered in are now countering the thump-thump nightlife reputation Ibiza created. In the fortified, Gothic center of the city of Palma de Mallorca, you'll find **Es Princep**, a contemporary five-star hotel with ocean views, and the intimate and art-filled **Can Bordoy**. (You won't spot a DJ at either.) On Formentera, there's **Etosoto**, an organic farm with 10 beachside rooms. **Experimental Menorca**, a nine-villa estate surrounded by wild gardens, also opens this summer. Of course, getting to the islands is half the fun. If you pass through Madrid, the **Prado Museum** is celebrating its 200th anniversary, and the **Hotel Ritz** has been impeccably restored by Mandarin Oriental Hotel Group Ltd. Or start in Barcelona, and you'll be a quick detour away from chef Ferran Adrià's soon-to-open research lab and gastronomic museum, **elBulli 1846**.

### RESOLUTION NO. 2

## Experience Totality

This summer, tackle two big bucket-list items with one vacation. On July 2 a full solar eclipse will dazzle **northern Chile**—whose clear skies and lack of urban light make it one of the world's

best stargazing regions. View the show from the Elqui Valley, where the boho-chic CasaMolle hotel recently opened, and local wineries include Tabalí and Falernia. From there it's just a 90-minute flight to the otherworldly Atacama Desert. Boutique travel company Upscape is offering a five-day itinerary that includes eclipse-viewing from a deluxe tented camp in Elqui, combined with an overnight

in Santiago. Members-only travel club Prior has a two-week trip that runs from Patagonia up to Atacama, with a stop for skywatching at a mobile camp in the Araucanía lakes region. And the high-end group tour specialist Intrepid has introduced an 11-day journey with "star" astronomer John Mason. Book quickly; opportunities like these may truly come once in a lifetime.



A replica of a Viking ship in  
Sunnfjord, north of Bergen

# Adventurers Only

Is raw, natural beauty  
your thing? Here's  
a to-do list for  
September, October,  
and November





## RESOLUTION NO. 3

## Discover Europe's Latest "It" Spot

Poland's next generation is embracing a wild streak of creativity—largely as a rebuttal to the government's far-right rhetoric. Get a front-row seat to the action by booking with Puro Hotels, an artsy, fast-growing boutique brand. Its 211-room property in the seaside town of Gdansk has a mural by Polish painter Seikon in its eight-story-high atrium; in its forthcoming

Krakow hotel, rooms will feature "hometown reflections" from five local illustrators. Focus your attention as well on the capital, Warsaw; it's emerging as a cultural hotbed, with up-all-night beach clubs lining the Vistula River. A Puro opens there in April, and the palatial Raffles Europejski has just been redone with a gilded midcentury aesthetic.

## Find Your Fjord In Norway

As travelers with time and money increasingly seek isolation and quietude, the way-north is seeing an uptick in year-round tourism. Yet Norway, the postcard for arctic bliss, hasn't been capitalizing on that

Because Norway's 1,000-plus fjords were carved by a succession of receding glaciers over 2.5 million years, locals call them "nature's work of art"

trend. That's largely because there are few places to stay; above-average national wages make high-touch hospitality a

pricey business proposition. Slowly but surely, entrepreneurs are finding workarounds—namely, by creating intimate resorts with small staffs.

**Lyngen Lodge**, famed as a place to view the aurora borealis, has eight bedrooms beneath a thick grass roof, and it's only 65 miles west of charming Tromsø. Farther afield is **Finvag**, a lovingly refurbished boarding school set on its own fjord—with its own small fleet of boats. This year the country estate **Amot**, just north of Bergen, will transition from exclusive-use villa to boutique hotel—meaning you can book one of its eight suites instead of the whole home. From there, you can take fishing and kayaking adventures in a Tolkienesque landscape of mountains and glacial rivers. In Oslo, the new jazz-inspired **Amerikalinjen** hotel is your jumping-off point to remote locales, such as the jagged crags of Lofoten or even the polar bear-filled island of Svalbard, both above the Arctic Circle. And more developments are on the way, as Marriott International Inc. brings its youthful **Moxy** brand to Bergen, and Aman Resorts founder Adrian Zecha considers a few tundra-bound projects. By the time **Svart**, the world's first energy-positive hotel concept (fueled by geothermal and solar power), opens in 2021, Norway will have completed its five-star transformation.

## Off-Road in the Falkland Islands

There are more penguins than people in this remote British territory near Antarctica. Still, the archipelago is best known for a 1982 war between the U.K. and Argentina, which continues to claim sovereignty and calls the islands the Malvinas instead. With tensions between the governments easing, the Falklands are slated to become more accessible. Rather than arrive on a cruise liner—or by nabbing an expensive seat through the Royal Air Force, which runs a semiregular flight from a military base outside London—you'll soon be able to fly in on Latam Airlines via São Paulo. Also making it easier to explore the windswept islands are nature-focused, land-based tours from **Intrepid Travel**. Visitors stay in comfortable lodge-style accommodations in the capital of Stanley, a onetime cargo service center that's become a surprisingly robust adventure hub. Surrounding the town are rugged landscapes for trekking, wide grasslands for jeep tours, and untrammelled beaches filled with elephant seals—and all those cute, waddling birds.



Gentoo penguins in the Falkland Islands

## Float Through Brazil's Pantanal

It's not as well-known as the Amazon, but the Pantanal, the planet's largest wetland, harbors the greatest density of fauna in South America within its network of verdant marshes and river trails. The more than 1,000 species—including stalking jaguars, flamingolike spoonbills, and mohawked tapirs—are concentrated in an area in Central-Western Brazil the size of Kansas. Before now, limited transportation infrastructure has made them difficult to come and see. On new itineraries from **Red Savannah**, though, travelers can sail through the tributaries of the Paraguay River on the region's first luxury expedition ship. The *M.V. Peralta* has 10 glass-fronted suites, an upper-deck plunge pool, and Zodiac rafts for deeper explorations through the floodplains. Or they can touch down on a 28-seat private jet courtesy of **TCS World Travel**, which is adding the region to a trip designed to hit the many highlights of Brazil.



# IT'S ALL ABOUT

# ASIA

The Tai Kwun cultural center in Hong Kong

Much of Asia is best experienced from December to February—when you minimize the risk of typhoons, monsoons, or extreme heat

## See a New Side Of Hong Kong

Amid the dense tangle of skyscrapers in Hong Kong, two entirely new neighborhoods are emerging. On the east end of Tsim Sha Tsui in Kowloon is the \$2.6 billion waterfront development known as Victoria Dockside, a burgeoning arts and design district transformed by the architects of New York City's High Line. The Avenue of Stars that snakes around the development reopens in February, but the precinct will come of age when the 43-floor **Rosewood Hotel** opens in March. From there, a five-minute Star Ferry ride to the island part of the city takes you to the 170-year-old police compound of Tai Kwun, which was reborn as a vibrant cultural zone with the debut of the **JC Contemporary** art gallery and **JC Cube** theater last summer. The must-try stops: **Dragonfly**, a cocktail lounge with stained-glass windows; the **Armoury** rooftop bar with its views of the neon skyline; and **Old Bailey**, a restaurant that spotlights Jiangnan delicacies such as Hangzhou smoked pigeon.

TYPE ILLUSTRATION BY FLATBUSH BROWN. SLOTH ILLUSTRATION BY JACI KESSLER LUBLINER. HONG KONG PHOTOGRAPH BY DENISE HOUGH FOR BLOOMBERG BUSINESSWEEK. VIETNAM: COURTESY JW MARRIOTT

### RESOLUTION NO. 4

## Beat The Winter Blues

In 2019, **Grenada** will be an ideal spot to cure your winter doldrums: The overlooked Caribbean destination has just received its first injection of St. Barts-level sophistication with the 43-room, nine-villa Silversands resort on powdery Grand Anse Beach. For something more adventurous, try **Costa Rica**. The surfer's

paradise is blossoming as an unexpected safari spot with hotels such as Nayara Tented Camp and Senda Monteverde. They're making it more comfortable in the country's volcano- and cloud-forest-filled interior, where sloths and olingos (raccoon relatives with monkeylike tails) can join in on your vacation.





## Pamper Yourself in Vietnam

With roughly a third as many international visitors as Thailand, Vietnam is often left in the shadow of its neighbor. But the country has seen a 30 percent surge in tourists in the past year, and many of them are flocking to Vietnam's 2,000 miles of tranquil coastline. At the month-old **Anantara Quy Nhon Villas**, midway between Ho Chi Minh City and Da Nang on the less-traveled central coast, guests can take in panoramic views from one of 26 ocean-facing bungalows. Farther south, the **JW Marriott Phu Quoc Emerald Bay Resort & Spa** is a tropical retreat on a former prison island, now with a protected national park. Most peaceful of all will be **Legacy Yen Tu**, a resort in a once-abandoned village in the Dong Trieu mountains near the limestone cliffs of Ha Long Bay. Painstakingly re-created by architect Bill Bensley, it opens in January with a Japanese *onsen*-inspired spa and a museum chronicling the area's rich history as Vietnam's cradle of Buddhism.



JW Marriott Phu  
Quoc Emerald Bay

## Break a Sweat in Bhutan

More luxury options than ever and a newly expanded airport mean Bhutan is no longer a bucket-list stop for only the temple-gazing crowd. Take the six-month-old, 22-room, all-inclusive **Bhutan Spirit Sanctuary**: Its wellness-oriented programming focuses on yoga, meditation, and spa treatments that employ foraged medicinal herbs. If that hotel's goal is to leave guests with a restful mind, safari operator **&Beyond** is catering to those with restless legs. At its forthcoming riverfront camp in the lush valley of Punakha, travelers will spend their days kayaking through the Mo Chhu River's crystal-clear waters and hiking past rice paddy fields punctuated by ancient fortresses. These newcomers offer a more immersive experience than Bhutan's long-established luxury circuits, which shuttle guests around a half-dozen high-end Como or Aman Resorts hotels scattered throughout the country. But if that type of broad overview is what you prefer, try the new lodges from **Six Senses Hotels**—they'll open by summer in five special locations secured through connections with the royal family. You won't find crowds: A nationwide, \$250-a-day visitor fee helps keep tourism numbers low.

## Tail a Tiger in Magical Madhya Pradesh

India is making great strides in conservation. The subcontinent is home to the largest population of wild tigers, whose worldwide numbers dipped to just over 1,400 in 2006. But with new reserves and better education, those numbers are expected to top 3,000 when the next Bengal census is released later this month. For travelers, that means sightings have gone from being

Pench National Park in Madhya Pradesh was the setting of Rudyard Kipling's *The Jungle Book*

unreliable to almost guaranteed—particularly in Madhya Pradesh, an 80-minute flight from Mumbai. Not only does the state have more protected parks than neighboring Rajasthan, but it's also less crowded. And new mobile camp experiences promise to take

guests deep into the wild: **Kaafila Camps** sets up plush outposts in underexplored swaths such as Kuno-Palpur in the northwest and Kalinjar in the northeast, so you can track real-life Shere Khans in areas that look untouched by human hands.

By Fabiana Batista, Sara Clemence, Nikki Ekstein, Julia Eskins, Jonathan Gilbert, Sarah Khan, Jen Murphy, Chadner Navarro, Helen Nyambura-Mwaura, Brandon Presser, Michael Sin, Lindsey Tramuta, and Gisela Williams



# Electricity Use Was Up Last Year, But Why?

By Justin Fox

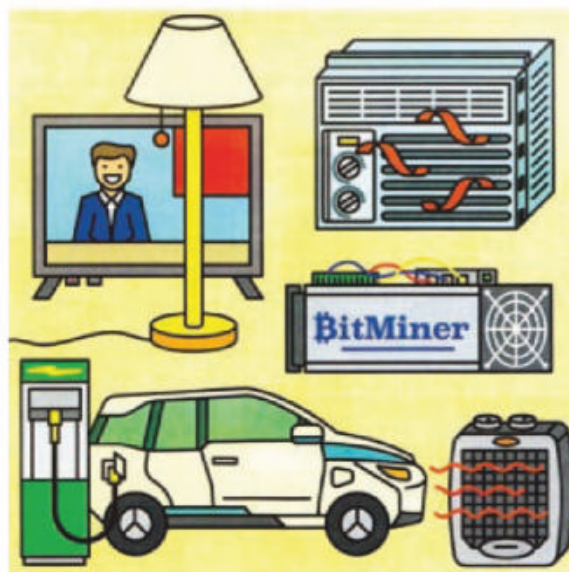
64

A decade ago, electricity use in the U.S. stopped rising. It had fallen briefly during recessions before, so the initial dip in 2008 and 2009 wasn't a shock. But after bouncing back in 2010, consumption remained unchanged even as the economy continued to recover. This unprecedented plateau, plus a shift away from coal in electricity generation, enabled an almost 15 percent decline in U.S. carbon dioxide emissions. It also exacerbated the coal industry's troubles and forced utilities to grapple with flat demand.

Over the past year, though, U.S. electricity use rose almost 2.3 percent, the U.S. Energy Information Administration estimates, by far the biggest increase since 2010. The numbers are preliminary and could be a blip. But any change is worthy of attention.

The past decade's slowdown occurred in part because of a shift toward services and digital products and away from energy-intensive goods, along with efficiency gains driven by government standards, technological advances, and cost concerns. This year's increase has been almost entirely the doing of consumers. (Industrial consumption fell.) That could mark a setback for energy efficiency or reflect changes in measurement of home solar generation. It could also be tied to greater use of electricity in heating and cooking, mining Bitcoins, and driving electric cars.

Or it could be that everybody had air conditioners on: The continental U.S. experienced the sixth-hottest average temperature and the warmest nighttime lows on record from June through August. Keeping electricity use down can slow climate change, but climate change may drive up electricity use. **B** —*Fox is a business columnist for Bloomberg Opinion*



● **CONSIDER THE CRYPTO**  
Electricity use by Bitcoin miners dropped recently as prices crashed, but still rose by about 45 terrawatt hours in 2018 overall, based on the Bitcoin Energy Consumption Index compiled by Alex de Vries. But assuming most mining is done overseas, it can't account for much of an 84TWh increase in U.S. electricity use.

● **PLUGGED IN, FIRED UP**

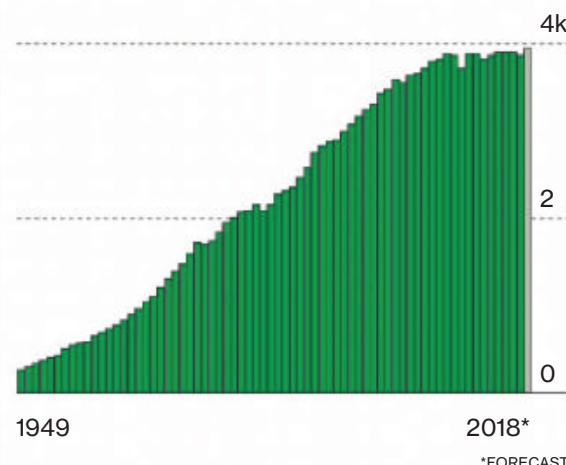
**47.1%**

of U.S. homes built since 2000 use electricity as their main heating source, compared with 19.5 percent of those built before 1970.

● **GETTING OFF THE OUTLET**

The electricity used to create \$100 (in 2012 dollars) of real gross domestic product in the U.S. peaked in 1976 at 34.3 kilowatt hours and is now down to about 22.5kWh.

Total U.S. electricity use, in terawatt hours



● **ROOM TO SHRINK**

Energy researcher Jonathan Koomey says the era of big efficiency gains isn't over: "We're far from the ultimate physical limits of efficiency, and we're getting more clever."



**Bloomberg**

# Corporate Reputation

## Making Your Mark

**February 28, 2019** | New York City

Join c-suite leaders to discuss how organizations are finding innovative ways to build better businesses and enhance communications while positioning themselves as reputation leaders and employers of choice.

Speakers include:

**Catherine Hernandez-Blades**

SVP, Chief Brand and  
Communications Officer  
Aflac

**Damien Hooper-Campbell**

Vice President,  
Chief Diversity Officer  
eBay

**Paige Ross**

Global Head of  
Human Resources  
Blackstone

Proudly sponsored by:

Register today on: **BloombergLive.com/Reputation**

Sign up with registration code: **BUSINESSWEEK**

**Ri**  
Reputation Institute